FEDERAL ENERGY REORGANIZATION ACT OF 1982

HEARINGS
BEFORE THE
COMMITTEE ON GOVERNMENTAL AFFAIRS UNITED STATES SENATE
NINETY-SEVENTH CONGRESS
SECOND SESSION
ON
S. 2562
TO TRANSFER THE FUNCTIONS OF THE DEPARTMENT OF ENERGY TO OTHER AGENCIES, TO MAINTAIN CONTINUITY IN VITAL PROGRAMS AND RELATIONSHIPS, TO RECOGNIZE THE FEDERAL ENERGY REGULATORY COMMISSION AS A SEPARATE INDEPENDENT REGULATORY AGENCY, AND FOR OTHER PURPOSES

JUNE 24, AUGUST 17, SEPTEMBER 15 AND 21, 1982

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FEDERAL ENERGY REORGANIZATION ACT OF 1982

THURSDAY, JUNE 24, 1982

U.S. SENATE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, D.C.

The committee met at 10:02 a.m., in room 3302, Dirksen Senate Office Building, Hon. William V. Roth, Jr. (chairman of the committee) presiding.

Present: Senators Roth, Percy, Stevens, Cohen, Mattingly, Rudman, Eagleton, Jackson, Pryor, Levin, and Schmitt.

OPENING STATEMENT OF SENATOR ROTH

Chairman ROTH. The committee will be in order.

Today, the Senate Committee on Governmental Affairs convenes its first hearing on S. 2562, the Department of Energy Reorganization proposal. The purpose of this legislation is to create an organization that will permit a more streamlined and effective approach to Federal energy activities by merging the Department of Energy with the Commerce Department. I might say that I have a detailed statement which I do not intend to read in its entirety, but unless there is objection, all statements of the panel will be included as if read.

I do, however, want to summarize some of the points contained in my statement.

In reviewing this proposal of the reorganization, we, on the committee, and in the rest of the Congress, will seek strong assurance that the reorganization does not, in any way, diminish the importance of civilian energy and energy weapons programs so vital to the national welfare and security. I believe that Government has a responsibility for developing broad policies that will help insure this Nation's energy self-sufficiency.

When Congress surveyed the energy program reorganization in 1977, it found fragmentation; it found poor coordination. It concluded that the consolidation of energy programs in a single department would alleviate these problems and improve national preparedness by increasing energy supply and decreasing demand.

Today, few observers of the national energy effort will argue that the Department created by this consolidation has adequately met the expectations of its creators. The failure to integrate various energy functions in DOE resulted in interdepartmental competition and conflict, inefficiencies, and poor program performance. Management and administrative problems in the areas of policy planning, staffing continuity, and contracting have hampered the performance of the Energy Department.

In light of these concerns, and the need in this period of fiscal constraint to receive the fullest return for every Federal dollar spent, a reorganization of energy functions is merited.

In supporting S. 2562, I want to underscore several points that I will address later today in my questioning. First, let me state that energy is the lifeline of our economy and future growth, so it is critically important that we develop policies that insure the development of adequate supplies of energy for this Nation at acceptable prices.

Any organizational change must maintain the research and development of technologies for long-term energy sufficiency and for our ability to meet the challenge of a short-term energy supply disruption.

Second, while nuclear energy is clearly a key aspect of our energy problem, it must not be permitted to exclude or minimize other potential energy sources such as the renewable sources or other areas, or to exclude the emphasis on conservation.

Third, when the Congress created the Department of Energy, it clearly stated that the Energy Information Agency would be an independent entity, not subject to the dictates of departmental appointees or the pressure of outside interests.

This protection must be preserved.

Fourth, as we know from past experience, reorganizations that are intended in part to save money can contain hidden costs, so at some point in our consideration of this legislation, I will want a detailed—and I stress the word "detailed"—explanation of the savings to be realized by the reorganization.

Finally, I would like to point out that we will pay close attention to the potential effect of the reorganization on existing programs in the Commerce Department. I believe that Secretary Baldrige has done an outstanding job of juggling a dizzying array of responsibility. Despite all his other tasks, he has placed a high priority on trade.

I just want to point out that as we move toward this reorganization, I want to assure the people here that this committee will be looking in detail to a reorganization that provides responsibility within the Government next year, because I think we have a legacy of confusion, bureaucratic nightmares, and duplication of effort in the area of world trade.

Finally, let me say that I am extremely pleased with the witnesses that we have before the committee. We are honored to have Secretary Weinberger, Secretary Edwards, and Secretary Baldrige, and I am very pleased to have the Deputy Director of OMB, Joseph Wright, before the committee as well. I know that each of these witnesses will make a great contribution to the discussion today.

[Senator Roth's prepared statement follows:]

PREPARED STATEMENT OF SENATOR ROTH

Today the Senate Committee on Governmental Affairs convenes its first hearing on S. 2562, the Department of Energy reorganization proposal. The purpose of this legislation is to create an organization that will permit a more streamlined and effective approach to Federal energy activities by merging the Department of Energy with the Commerce Department. This organizational proposal is one aspect of the broad Federal energy program reflected in policy decisions and budgetary actions which are being discussed and debated in other forums.

Our focus today is on the organizational aspect of this overall program. In reviewing this proposal we on the committee and in the rest of the Congress will seek assurance that the reorganization does not in any way diminish the importance of the civilian energy and energy weapons programs so vital to our national welfare. As I said in my statement on May 24, when I introduced S. 2526, "it is important that this reorganization legislation adequately protect all interests affected by Federal energy policy while ensuring the effective implementation on that policy."

When Congress surveyed energy program organization in 1977, it found fragmentation and poor coordination. It concluded that the consolidation of energy programs in a single department would alleviate these problems and improve national preparedness by increasing energy supply and decreasing demand.

Today few observers of the national energy effort will argue that the department created by this consolidation has adequately met the expectations of its creators. The failure to integrate various energy functions in DOE resulted in interdepartmental competition and conflict, inefficiences and poor program performance. Management and administrative problems in the areas of policy planning, staffing continuity, and contracting have hampered the performance of the Energy Department.

In light of these concerns, and the need in this period of fiscal constraint to receive the fullest return for every Federal dollar spent, a reorganization of energy functions is merited.

In supporting S. 2652 I want to underscore several points that I will address later today in my questions. First, as I have said, energy preparedness remains a primary policy concern for the future of our Nation. Any organizational change must maintain the research and development of technologies for long-term energy sufficiency and for our ability to meet the challenge of short-term energy supply disruption.

Second, while nuclear energy clearly is a key aspect of our energy program, it must not be permitted to exclude other potential energy sources in the renewable area. Certainly renewable energy source research and development is a means of helping to meet future energy demand, and the burgeoning alternative source energy industry is a growing source of employment for our people. In the development of this reorganization proposal, I specifically added responsibility for alternative energy source development to the tasks of one of the Assistant Secretaries in the proposed Department of Commerce. As we proceed with the hearings, I will want to make certain that these important research programs are appropriately supported and implemented.

Third, when the Congress created the Department of Energy, it clearly stated that the Energy Information Agency would be an independent entity, not subject to the dictates of departmental appointees or the pressures of interest group politics. In order to preserve this protection for all energy consumers I will want strong assurance that the new Bureau of Energy Independence retains its independent status in the Department of Commerce.

Fourth, as we know from past experience, reorganizations intended in part to save money can have hidden costs. At some point in our consideration of this legislation I will want a detailed, and I stress detailed, explanation of the savings to be realized by the reorganization in terms of administrative cost reductions, reductions in personnel levels, and related programmatic savings.

Finally, while we are focusing primarily on energy programs in this legislation, we must also pay close attention to the potential effect on existing programs in the Commerce Department. Secretary Baldrige has done an outstanding job of juggling a dizzying array of responsibilities. Despite all his other tasks, he has placed a high priority on trade. I continue to believe, however, that he and U.S. Trade Representative Bill Brock are saddled with an unworkable system. The trade reorganization of 1979—with its interdepartmental separation of trade functions—has left a legacy of confusion, bureaucratic nightmares, and duplication of effort. As a result, notwithstanding the best efforts of the Secretary of Commerce, the U.S. Trade Representative and their respective deputies, we do not have the kind of lean, mean trade machine we need to operate aggressively in the international marketplace.

Imagine how much more aggressive and internationally successful we might be were we properly organized for trade! I continue to be committed to creating the proper mechanism within Government to promote our trade objectives. In light of today's hearing on adding new responsibilities under the umbrella of the Commerce Department, I will want to look even more closely in the near future at how we are handling trade in the Federal Government.

I am particularly pleased with the witnesses that we have before the committee. Secretaries Weinberger, Edwards, and Baldrige and Office of Management and Budget Deputy Director Joseph Wright all have a substantial contribution to make to this discussion. Their presence here today bespeaks of the high level of commitment on the part of the administration to these energy concerns. I look forward to each of their statements and responses to questions. Following the opening statements of the members of the committee, we will hear first from Secretary Weinberger, who I know must depart after a brief period of questions. Following Secretary Weinberger we will hear from the other members of our distinguished panel.

Chairman ROTH. Before I call the first witness, I would like to call my colleagues for any statements they may have.

Senator Jackson?

OPENING STATEMENT OF SENATOR JACKSON

Senator JACKSON. Mr. Chairman, I have a brief statement.

This is a most inappropriate time to be considering this legislation to reorganize the DOE. The Middle East is a chain reaction of wars waiting to happen. Iran, with the support of the Soviet Union, has dealt Iraq a serious blow. Whether Iran will press on against Iraq and possibly retaliate against the moderate Arab States for their support of Iraq remains to be seen. The recent conflict between Israel and the PLO, and the Syrians and potentially, with the other Arab States, has brought tensions in the Middle East to a new peak. The glue that holds the Middle East together is little of our doing, nor under our control. It depends on the restraint of the nations who, no doubt, find it politically difficult to exercise restraint under the circumstances.

The United States continues to import almost exactly the same percentage of our imported oil needs from the Persian Gulf as we did in 1973. That is about 28½ percent.

Our allies are still very much dependent on Arab oil. The security of our economy and that of our allies are still much at stake, and even if the "oil weapon" is not used, just the threat of its deployment could send gasoline and heating oil prices skyrocketing.

Yet we are taking testimony today on whether we should bury the Department of Energy. What kind of signal are we sending abroad if we prepare for a potential oil embargo, or worse, by dickering over whether we should demote the DOE from a department to a subagency? What matters more today, the adequacy of our emergency energy contingency plans, or which department should hang its logo where those plans are formulated?

Mr. Chairman, there is also an insidious aspect of this legislation. Some may say, "All right, we know the bill is not going anywhere in the House; what difference does it make if the Senate debates this political issue?" The tragedy is that whether this legislation is enacted or not, its very introduction and consideration is causing a hiatus in our Nation's search for energy security.

The Department of Energy is paralyzed with uncertainty, and the paralysis will continue as long as S. 2562 is actively considered. After Secretary Edwards departs, and he has done a good job under very difficult circumstances—I hope that won't hurt you by that comment. [Laughter.]

Mr. EDWARDS. Thank you, Senator.

Senator JACKSON. We will have a headless department in charge of our Federal energy policy. Even if S. 2562 is enacted, it will be many months, perhaps years, before the new Commerce Department is running smoothly, and I have a very high regard, as I have told him personally, for Secretary Baldrige.

Commonsense tells us that the aftermath of reorganization of the Department of Energy will be prolonged confusion. One Department does not swallow another one, considerably larger than itself, without suffering a protracted period of indigestion.

Besides sending the wrong signal at the wrong time, besides creating a hiatus in energy policy for the foreseeable future, this legislative proposal has another fundamental flaw: It accomplishes very little.

Let us consider the original purpose of this bill. In his televised speech of September 24, 1981, the President proposed, as he had in his campaign, to dismantle the DOE, and I quote:

> There is only one way to shrink the size and cost of big government, and that is by eliminating agencies that are not needed and are getting in the way of solution.
>
> Now, we don't need an energy department to solve our basic energy problem. As long as we let the forces of the marketplace work without undue interference, the ingenuity of consumers, business, producers and inventories, will do that for us.

President Reagan proposed dismantling the DOE because he equated DOE with energy regulation. Look at the fiscal year 1982 funding for DOE. The biggest single element, defense programs, is 36 percent of the DOE budget.

The next single element is the strategic petroleum reserve, which is 29 percent of the DOE budget. Energy R&D is 21 percent of the budget. These three elements alone, Mr. Chairman, account for 87 percent of the DOE's budget. The funds—and I emphasize—for regulatory activities are only 1 percent of the DOE budget, and that includes the budget for FERC, the Federal Energy Regulatory Commission, an agency which the administration would retain as an independent regulatory authority.

Close examination of what DOE does suggests that the dismantling the Department of Energy in order to abolish energy regulation is like burning your house down to exterminate a cockroach. It suggests total ignorance of what the Department, in fact, does.

I believe that the President was ill served by his staff in perpetuating this campaign rhetoric. Unfortunately, the rhetoric required a momentum of its own that culminated in the production of S. 2562, a bill whose original rationale has long since disappeared.

Certainly, S. 2562 does not dismantle the DOE as Senator McClure pointed out in sponsoring the bill. Nor does it significantly reduce energy regulation, because no major regulatory statute is repealed.

This is not to say that there are not serious problems with the bill. But more basically, what does this legislation do?

As best I can determine, its primary accomplishment is to shuffle boxes. We are told that this box shuffling will make the DOE programs more efficient, but nothing I have heard in the Energy Committee or this committee suggests that DOE defense programs need reorganizing. Neither is the SPR program in need of organizational reshuffling. The same goes for the national labs; who have already been reorganized four times in 8 years. These programs constitute the bulk of the Department, as I pointed out, 87 percent including energy R&D functions.

Mr. Chairman, obviously, I am opposed to this legislation. [Laughter.] I think it is the wrong signal; it is the wrong time. It would create a hiatus in our search for energy security, and this committee, I must say, is kidding itself if it believes box shuffling is going to make the Government more efficient.

I thank the chairman.

Chairman ROTH. The Chair would point out that it will recognize the Senators in the order they came.

Second, we do have a time constraint problem.

Secretary Weinberger, I know, has to leave rather promptly after making his statement. So, if possible, I would have each Senator to summarize their opening statements.

They will be incorporated as if read.

Senator Cohen?

OPENING STATEMENT OF SENATOR COHEN

Senator COHEN. I will just make a few observations, Mr. Chairman.

I think it is important, while we are reviewing this reorganization proposal, that we also consider whether or not the administration is attempting a de facto abolition of the Department through its budget request and its reduction in force.

The GAO is now completing a study of the reductions in staff for the DOE's conservation and renewable energy programs, and I think the implications of their findings are quite disturbing.

They suggest that even if they provide adequate funding for these programs, namely, energy conservation and the promotion of renewable energy resources, that even if we fund these programs, DOE probably will not be able to carry out its statutory programs because of the reductions in force.

If this study concludes that DOE is not meeting its statutory requirements, I think that we have an obligation to act immediately.

We have seen this in the past where an administration will attempt to undo, through administrative procedures, what it cannot do constitutionally.

The burden is upon this administration to show why it should reorganize the Department of Energy, but in the meantime, it has a constitutional obligation to carry out the programs that are mandated by the Congress, and not to undermine and, in effect, abolish the programs which Congress has supported.

CBO has drawn several conclusions from this reorganization proposal. The reorganization, by itself, according to CBO, is unlikely to result in any significant budget savings. Any savings achieved would be offset by additional administrative and logistics costs.

Second, the proposed reorganization is not likely to improve the coordination among energy programs. Indeed, they suggest that coordination, more likely, would be more difficult.

Third, no special provision for the coordination of a response to disruption in the supply of imported oil, except for the strategic petroleum reserve, which places a very heavy reliance on the marketplace and raises serious questions regarding economic and social dislocations during a supply shortage.

Mr. Chairman, first of all, we should call it the U.S. Department of Commerce and Energy. If you look at that chart over there, you will find that all of the energy functions have been shifted over to Commerce, with some minor exceptions, and they have simply eliminated the word "energy" from the Department itself. But it should be called the Department of Energy and Commerce or Commerce and Energy.

Second, it is topheavy with assistant secretaries. You have an assistant secretary for energy research, which includes, if you look at the budget, mostly nuclear; and, second, an assistant secretary for nuclear energy.

You have two assistant secretaries devoted to nuclear energy, for the most part, and you have one assistant secretary for energy technology, conservation, alternative sources; every other facet of energy in this country is under one assistant secretary.

It seems to me that we are making a fundamental mistake by downgrading conservation, renewable energy resources and powering all of our resources into nuclear energy.

It is a mistake, in my judgment, and I would like to explore that in the course of the day.

Chairman ROTH. Senator Pryor?

OPENING STATEMENT OF SENATOR PRYOR

Senator PRYOR. Thank you, Mr. Chairman.

I would like, if I could, as we were talking about reorganizations, to simply read from the United States Code, the duties and responsibilities of the Department of Commerce.

I quote, "It shall be the province and duty of said department to foster, promote and develop the foreign and domestic commerce, the mining, manufacturing and fishery industries of the United States."

Mr. Chairman, I am concerned about the enormity of this particular proposed change as it relates to moving the Defense nuclear weapons program into a department that knows absolutely nothing about nuclear defense.

I think, too, it is very significant to note that the Department of Commerce's entire budget is only approximately half, one-half, of what we annually expend in the Department of Energy for nuclear weapons production.

In fiscal year 1977, when the Department of Energy was created, we were spending $1.7 billion for nuclear weapons in that department. By 1987, the estimate is that we will be spending $7.9 billion for nuclear weapons.

In fiscal year 1980—and these are not Department of Defense dollars these are Department of Energy dollars—for research and development programs and those programs which call for the construction of nuclear weapons, $2.3 billion went to the Department of Energy for nuclear production.

If the process is examined over a period of years from fiscal year 1980 to fiscal year 1987, we are looking at a 231 percent increase in funds spent for the production of nuclear weapons.

It is my fear that what we are really doing, in this move, is not actually abolishing the Department of Energy, but creating a new Department of government which should be called, "The Department of the Military Industrial Complex." [Laughter.]

We are looking at $30 billion over the next 6 years that will be expended by the Department of Commerce where there is absolutely no expertise—and I say this with the hope that our friends from the Cabinet will not take personal affront at that statement.

Mr. Chairman, I have a statenent I would like printed in its entirety. I would only conclude by agreeing with Senator Jackson who said that he was opposed to this move. I would say that my opposition is not only for the reasons that I have stated, but also that the overall scope of things causes me to say that I have a minimum of high regard for this particular idea.

Thank you.

[Senator Pryor's prepared statement follows:]

Prepared Statement of Senator David Pryor

Mr. Chairman, I am very pleased that you have begun the hearings on the proposal to reorganize the Department of Energy. As most of my colleagues know, I have never been one of DOE's best friends. In the past, I have criticized the Department for its use of consultants and contractors to perform work beyond the scope of appropriate assistance. I have shown that DOE does not comply with its own rules regarding record-keeping, management controls, and conflict of interest. In short, I have grave concerns about the Department's ability to perform effectively and efficiently.

Today we are considering the future of this Department and its programs. Energy conservation, fossil fuels, solar energy, and power administration: these make up the picture of the Department of Energy that most people see involved in this reorganization.

But, Mr. Chairman, there is more—much more—at stake. Nuclear energy programs in the Department of Energy include not only non-defense nuclear energy, but defense nuclear programs as well. It is this area that performs the basic and applied research, the engineering, production, and testing of nuclear weapons. From a budget standpoint alone, these nuclear programs comprise the majority of the Department of Energy.

Look at the projections. They range from $3.6 billion in fiscal year 1981 to $5.8 billion proposed for fiscal year 1983, and then to an $8 billion projection for fiscal year 1987. The fiscal year 1983 budget for Atomic Energy Defense Activities alone would be almost twice the total fiscal 1982 appropriation for the entire Department of Commerce.

S. 2562, the Federal Energy Reorganization Act of 1982, has an impact beyond merely changing the organizational charts of the Departments of Energy and Commerce. It is much more than merely moving thousands of desks from one building to another, or changing the letterhead. It means the transfer of a highly sensitive and important function essential to our national security to a Department which has no expertise in this area. In this connection, let me simply share the description of the Commerce Department as defined in the U.S. Code.

It shall be the province and duty of said Department to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, and fishery industries of the United States.

What is the logic of placing a critical nuclear program in this Department? Given the relative size and function of Commerce, what effect will transfer have on the priorities of its Secretary and its professional staff? Will the appropriate questions about the effects of a nuclear arsenal, for instance, be asked? In my opinion, far too little attention has been given these and other questions.

Mr. Chairman, I hope we will be able to explore this issue in depth. With the distinguished witnesses you have brought together today, we should at least be able to begin an examination early in the process of considering this reorganization plan.

Chairman Roth. Senator Stevens?

OPENING STATEMENT OF SENATOR STEVENS

Senator **Stevens**. Mr. Chairman, I have a statement I would like to have printed in the record.

I would also like to remind my friends on the other side of the aisle, though, that we have sat through reorganization after reorganization.

Each President comes in, submits his reorganization, and we have routinely approved those reorganizations whether they are health and human services or the department of education or the creation of a new department of energy.

I feel that this President has that same right to reorganize the executive branch that he has been elected to manage. We don't manage it.

I have recessed a hearing downstairs on the airlift capacity, which my friend from Washington is interested in, but I point out that the annual cost of just that one item of the military exceeds all of the costs we are talking about here.

The President has the right, I think, to ask us to organize the executive branch in the manner in which he wants to manage it, and if the next President wants to change his mind or her mind, we will look at that.

At the present time, I would say that this is a proposal that merits our attention and review and approval as early as possible so the President can get on with the job he was elected for, and that is to be the chief executive.

[Senator Stevens' prepared statement follows:]

Prepared Statement of Senator Ted Stevens

The President's plan to reorganize the Department of Energy is a sound one. In 1977, when we first set up the Department, we were attempting to establish a policy allowing the resolution of serious energy policy shortcomings.

The key to this policy was the establishment of an effective agency to deal with energy issues. Unfortunately, the Department of Energy is not an effective agency. The thrust of that agency has been creation of overly-broad regulation, imposition of artificial economies for new energy technologies, and distortion of energy supply and demand markets. The Federal role was intended to be one that works within the framework of our economic system. Instead, we supplanted market forces in many instances with government-imposed direction and control. We need to return to a fundamental program providing basic research for long-term energy sources, and boost near-term energy resources that can demonstrate the ability to contribute in the market place given reasonable aid by government policy and financial support. At the same time, the program must recognize the requirement of national security and defense.

The very nature of the Department of Energy precludes the fulfilling of that role. By separating the Department of Energy from agencies integrally related to energy issues, we perpetuate a system wherein one arm of our government attempts to make energy policy in a vacuum. Energy is a component of our economic production equation, and must be treated as such at the Federal level.

In 1977 when we debated this bill, I expressed my fear that we were creating a "Pentagon of the Energy" and stated my hope that the future Congresses would look back more favorably than we have on the creation of the military Pentagon. I also noted that we were establishing a government reorganization prior to development of an energy policy.

The last 5 years have not been a testimonial to the power of the Federal Government to organize and implement a forceful energy policy through the DOE. It is the prerogative of each Administration to implement policy through a government structure it deems most useful in accomplishing its objectives. This Administration is committed to a realistic energy policy that employs, rather than attempts to force feed, technologies into the marketplace. I support this approach and would suggest to my colleagues that they look to the effects of the deregulated marketplace in enhancement of conservation efforts and stabilization of oil prices. This is not to say that the Federal government should remove itself from Energy issues. Our role in emergency planning, long-term research, and coordination of policy is clear. What we must address today is what government structure best advances the policy objectives outlined by Congress and the Administration.

I am pleased to see the Commerce Department taking the majority of energy programs under this plan. This allows for Cabinet-level representation of energy programs and—most importantly—integrates energy programs into our overall economic policy. This is not occurring today. I am hard pressed to identify areas where we are efficiently coordinating our energy policy with our economic policy.

The plan is designed to rationally assign DOE functions to the most appropriate agency. It transfers to the Department of Interior functions that are related to our Federal lands. Agriculture receives biomass programs, and Justice is placed in charge of enforcement and litigation. Finally, the Federal Energy Regulatory Commission is confirmed in its independent agency status to deal with ratemaking of pipelines, hydroelectric facility permitting, and its other existing responsibilities.

FERC must establish itself as a competent permitting authority. Under the ICC and FPC we had a reliable permitting system, although those agencies were certainly far from flawless. For instance, we are still waiting on a methodology for a tariff on the Trans-Alaska Oil Pipeline finished in 1977. I fully endorse a FERC that can aggressively and independently seek solutions to these problems. We must find a way through this reorganization to reinstitute certainty in the FERC permitting process.

It is often stated that this reorganization proposal is sending the wrong signals to the country or to foreign nations regarding our energy policy. Nothing can be further from the truth. Most western nations' energy programs are organized analogously to the Administration's approach. Moreover, it is clear that this program is not a retreat from a commitment to national energy security. This reorganization can be a step forward in realizing meaningful implementation of a comprehensive energy policy.

We must be aware that there is still a perilous course ahead for resolution of our energy problems. Although the President's accelerated deregulation of oil precipitated a glut and decreasing process for crude and petroleum products, the overall supply picture is not greatly improved from 10 years ago. We are still dependent upon the Middle East for an inordinate percentage of our oil supoply, and there is as yet no clear indication that we are taking the necessary steps to implement an effective plan to enhance domestic energy production to meet the threat of supply disruption through embargo, military conflict, or the predatory practices of a still viable OPEC cartel.

I am convinced that this plan can help us identify and fulfill the Federal obligation to augment normal economic forces in providing for secure and adequate energy supplies. No one is suggesting that we return to the fragmented system existing before formation of DOE. The President's program recognizes the need for high level, cohesive decision-making on national energy issues.

We should remember that Congress provided for a "sunset review" in establishing DOE in 1977. The verdict is in, finding DOE to be a failure as a single-purpose agency. We must allow this President his prerogative to allocate functions to agencies in a fashion that he finds most workable. This will facilitate a coherent policy recognizing the need of the government to establish and carry out an effective program to ensure a secure energy future for this nation. I strongly support the thrust of this program.

Chairman ROTH. Senator Rudman?

Senator RUDMAN. Thank you, Mr. Chairman.

I just came here to listen this morning. Actually, I want to hear the facts before I make up my mind.

Chairman ROTH. That is very refreshing. [Laughter.]

That is very unique to see.

Senator Levin?

OPENING STATEMENT OF SENATOR LEVIN

Senator LEVIN. I am not sure I can say anything after that, but I have thoroughly studied all the facts already. [Laughter.]

It is my general belief, Mr. Chairman, that any administration should be given the leeway to organize itself and structure the Departments of Government in the manner that it believes will best get the job done.

However, the problem is that the current administration does not really want to get the energy job done. I have seen no evidence that the DOE is committed to the goals and the statutes now governing its operation.

Instead, through its budget requests, deferrals, RIF's and reorganizations, DOE sees fit to drastically reduce the drive for energy independence, for energy conservation, for energy alternatives.

We are unwilling to pay the price now, but we will have to pay the OPEC piper later.

Elimination of the DOE is further evidence of the surrender of America's energy future to OPEC. There has been a catastrophic drop—energy already is dropping.

[Lights dim—laughter.]

Senator LEVIN. There has been a catastrophic increase [lights brighten—laughter].

It never used to be. I have ESP.

There has been a catastrophic drop in our energy budget in just 2 years. In 1981, budget outlays for energy were $10.2 billion. In 1982, it dropped to $4.6 billion, and in 1983, the administration budget proposed $4.2 billion, from $10.2 to $4.2 billion for energy in but 2 years.

I am also concerned about the long-range energy research and development programs of this Nation. While this administration has proposed cutting the conservation research development budget by more than 90 percent, the Japanese Government has doubled its investment in conservation.

The French have more than doubled their investment in conservation, R&D; and Germany's funding has been increased 66 percent.

With such a policy, not only do we risk all the dangers inherent in our continuing dependence on foreign oil, but because of our short-sighted research commitment, soon we will be losing markets for conservation devices to foreign competitors, foreign competitors who, in many cases, are now continuing the research programs that we began but have let die.

The DOE has not been satisfied with the tremendous budget cuts in their program. They have undermined the workings of statutorial mandated programs by playing a game of musical chairs with their remaining staff.

For example, in the State and local assistance program, 44 percent of the staff is newly assigned. In conservation, 36 percent of the staff is newly assigned. In renewable energy resources, 46 percent of the staff is newly assigned and so forth.

Added to an attrition rate of 17 percent and thousands of RIF's, such changes have caused chaos and terrible morale problems.

I don't see why these programs should be shunted over to another Department. If I did not believe our energy programs to be such an important issue, I would be tempted to say we should just let these programs die in peace.

Unfortunately, that would be irresponsible. I believe the Congress has an obligation to the fight to keep these programs and the Energy Department alike so that when and if we all wake up to the perils to the U.S. security of what we are doing in destroying our energy program, we will at least have a foundation upon which to rebuild an energy program.

Thank you, Mr. Chairman.

Chairman ROTH. Again, I would like to point out that the Secretary of Defense has a tight schedule, and all statements will be included in their entirety.

Senator Eagleton?

OPENING STATEMENT OF SENATOR EAGLETON

Senator EAGLETON. You have nudged me, Mr. Chairman, and I will try to comply in part. I ask that my full statement appear in the record.

I will just make a brief comment, because I understand that prior to my coming to the hearing room there were some excellent statements made by Senator Jackson, Senator Cohen, and others, most recently by Senator Levin, with which I fully identify.

I would say to my colleague, Senator Stevens, that he is partially correct when he said that we should try to accommodate an administration as to their proposals for reorganization within the administration, but what we have before us is not simply a reorganization.

For all of its flaws, the Department of Energy symbolizes our recognition of the problem which hangs over our prosperity and national security like Damocles' sword. Just within recent days, in questions raised with Secretary Haig, the possibility has been noted that our failure to restrain Israel in the invasion of Lebanon could trigger another oil embargo. This is a tremendous reminder that this is no time, in my judgment, for attempting to fulfill glib campaign promises. Further, this is no time for decisions dictated by ideology or bureaucratic box shuffling or baseless bravado.

Today, Secretary Edwards will testify, "I am not ready to announce that the energy crisis is over. That would send the wrong signal." However, he will go on to add, "We have finally reached the point where our energy problems are no longer being magnified out of proportion. We know what the remaining problems are, and we know how to take care of them."

I dissent from those over-confident assertions. I think these views send a wrong signal. I think the budget cuts in solar and conservation and fossil fuels send the wrong signal. And because I see this proposal as the organizational counterpart to the Reagan energy program. I believe that it sends the wrong signal, as well.

I would like to highlight one additional issue that will concern me as hearings develop on this matter: namely, the attempts by officials of the Federal Energy Regulatory Commission [FERC] to accelerate the decontrol of natural gas prices.

In my view, the Commission has repeatedly shirked its responsibility to protect consumers and disregarded the clear intent of the Congress in pursuing this back-door method of decontrol of controlled gas.

Despite critical resolutions which have been cosponsored by a third of the Senate, and over half of the House, the Commission has continued, indeed, it has expanded its administrative attack on remaining gas controls.

This is an issue that I will want to further develop, Mr. Chairman, both in the hearing process and if and when we get to markup on this bill. I am serving my notice of intent with respect to that issue.

Thank you.

Chairman ROTH. Thank you, Senator Eagleton.

[Senator Eagleton's prepared statement follows:]

PREPARED STATEMENT OF SENATOR THOMAS F. EAGLETON

It is fitting that we take up the Reagan administration's proposal to reorganize the Energy Department against the backdrop of yesterday's news that rising gasoline prices were the main contributing factor to last month's 1-percent increase in the cost of living. Experts tell us that gasoline prices will continue to rise in the months ahead. Apparently, the so-called oil glut—which produced several months of abundant supplies and declining prices—is over.

The implication of this reverse in oil prices is directly relevant to our consideration of this reorganization plan. In my view, the proposal to dissolve the Department of Energy by transferring most of it into the Commerce Department results from three premises.

The first is that the Department of Energy has been a meddlesome and intrusive bureaucracy—a symbol of government ineptitude to many individuals and businesses.

The second is that because of decontrol and the abolition of other regulatory functions, the Department has relinquished a significant number of the responsibilities which justified its status as a cabinet department.

I certainly don't disagree with the first premise. I have been a vocal critic of the waste and sheer wrongheadedness that have often marked the operations of DOE. In 1980, I introduced legislation which would have cut the fat out of the energy bureauracy by simply terminating 1,000 regulatory positions when the regulatory function for which they were responsible ended. However, my qualms have been about the operational foibles, not the functional characteristics, of the Department, and continue to be so.

I think that the second point is certainly worth serious consideration. I am not aware of any rule of thumb governing the critical mass of cabinet departments, but the responsibilities of the Energy Department have been sharply reduced, and there may be some point at which a cabinet department loses enough of its functions to lose its cabinet status as well.

Where I part company from the Reagan administration is in its third premise: that energy is no longer a special problem. Background papers explaining the administration's proposal state it this way: "the current proposal would treat energy . . . for what it is: a critical and important component of our overall economy—but not an isolated and distinctive phenomenon." What underlies the Reagan administration's proposal is the belief that the market alone can spur the needed production and conservation, and that the government has no significant role to play in furthering our efforts to reduce our reliance on foreign oil, other than to fund limited research and development.

In this area, as with the economy, the Reagan administration deserves credit for a willingness to lay its cards on the table. The President's fiscal year 1983 energy budget proposals contained draconic slashes in the areas of conservation, coal and fossil fuels, and solar and renewable energy sources. Despite the urging of many in his own party, the President vetoed legislation which would have given him standby authority to deal with another oil supply interruption. The message is plain: with price controls and other forms of government intervention out of the way, the Reagan energy program is in place. We have turned the corner, and we will produce our way out of this mess.

Unfortunately, in this area, as with the economy, the Reagan program is driven by ideology, rather than reality. While we have made progress in reducing our oil imports since 1977, in large measure because of the current recession, we remain dangerously dependent on foreign oil and vulnerable to another supply interruption. The current oil glut may prove to be no more lasting than the satisfactory supplies in 1977–1978 which preceded the fall of the Shah and the crisis of 1979. In this comparatively tranquil period, we should be doubling our efforts to free ourselves from our dependence on foreign oil, not offering blithe assertions that we have turned the corner or spied the light at the end of the tunnel.

The Carter administration exhausted itself and public support by fighting the hard battles needed to put in place a diversified, balanced energy program. The Carter program placed major reliance on the free market by letting oil and gas prices rise, but the program also recognized a significant role for the government to play in spurring conservation and the development of alternative energy sources. According to many experts, the Reagan administration has benefited from Carter's decisions to decontrol oil and decontrol "new" natural gas. However, the Reagan administration is irresponsibly slashing away virtually every other facet of the Carter program.

Viewed strictly in organizational terms, the impact of this proposal is not cataclysmic. It transfers a large part of the Energy Department intact to Commerce. It envisions certain interesting and potentially useful linkages between energy and Commerce's diverse functions. It justifies concern because it is still another major reorganization, with some inevitable disruption, in the energy area—the sixth in less than a decade.

But this is not simply a reorganization. For all its flaws, the Department of Energy symbolizes our recognition of the problem which hangs over our prosperity and our national security like Damocles' sword. Within the last week, Saudi King Fahd raised with Secretary Haig the possibility that our failure to restrain Israel in the invasion of Lebanon could trigger another oil embago: a grim reminder that this is no time for attempting to fulfill glib campaign promises. Further, this is no time for decisions dictated by ideology, bureaucratic box-shuffling, or baseless bravado.

Today, Secretary Edwards will testify: "I'm not ready to announce that the energy crisis is over—that would send the wrong signal." However, he will note, "we have finally reached the point where our energy problems are no longer being magnified out of proportion. . . . We know what the remaining problems are, and we know how to take care of them." I dissent from those confident assertions. I think that those views send the wrong signal. I think that the budget cuts in solar, conservation, and fossil fuels send the wrong signal. And because I see this proposal as the organizational counterpart to the Reagan energy program, I believe that it sends the wrong signal too.

I would like to signal my particular interest in one issue of energy policy of substantial concern to the citizens of Missouri: the attempts by officials at the Federal Energy Regulatory Commission (FERC) to accelerate the decontrol of natural gas prices. In my view, the Commission has repeatedly shirked its responsibility to protect consumers and disregarded the clear intent of Congress in pursuing the "backdoor" decontrol of old gas.

Despite anti-FERC resolutions which have been cosponsored by a third of the Senate and over half of the House, the Commission has continued, and indeed expanded, its attack on remaining gas controls.

The people of Missouri have told me that they are fed up with FERC and frankly, I share their views. I will therefore offer amendments during the committee's consideration of this legislation which will make the Commission more responsive to the needs of Congress and more attentive to the laws it is charged with upholding.

Chairman Roth. Senator Mattingly? The briefer the better.

Senator Mattingly. Show me. [Pause.]

Mr. Chairman, were my comments recorded?

Chairman Roth. I will proofread them and make sure they are included in their entirety.

Senator Mattingly. We will submit it in writing.

Chairman Roth. I, at this time, would call upon Mr. Weinberger.

Mr. Weinberger, if possible, I would ask you to summarize so that we could give each Senator the opportunity to ask one question.

TESTIMONY OF CASPAR W. WEINBERGER, SECRETARY OF DEFENSE, ACCOMPANIED BY JAMES P. WADE, JR., OFFICE OF THE SECRETARY OF DEFENSE, OFFICE OF RESEARCH AND ENGINEERING; JAMES B. EDWARDS, SECRETARY OF ENERGY; MALCOLM BALDRIGE, SECRETARY OF COMMERCE; AND JOSEPH R. WRIGHT, JR., DEPUTY DIRECTOR, OFFICE OF MANAGEMENT AND BUDGET

Mr. **Weinberger**. Thank you very much, Mr. Chairman and Senators.

My tight schedule, which you kindly referred to, is due to the fact that the Norwegian Minister of Defense is paying his first visit to the United States. We think it is extremely important that we keep all of the friends that we have, and so I want very much to maintain the schedule I have had with him for many months to meet with him all morning, so I will summarize the statement and express at the outset the fact that I am very honored to have the opportunity to appear before you and to speak of the President's proposal to reorganize Federal energy activities.

My colleagues in the Cabinet, Secretaries Baldrige, Edwards, and others, will address the benefits that will come for the Nation's energy needs. I am going to comment exclusively on one facet of the reorganization, and that is the transfer of the Department of Energy's defense-related activities.

We are sure that under the proposal, the health, the vitality and the leadership of these critical programs will not in any way be impaired by the proposed reorganization, but, in fact, it will strengthen the programs. Over 50 percent of the energy budget, as Senator Jackson has pointed out, is allocated to nuclear weapons, naval reactors and other defense activities.

The involvement of the Department of Energy and its predecessors in vital national security activities goes back more than 35 years.

We have had a good and fruitful working partnership with them during all of that time, and we believe that there is not going to be any hindrance to the continuance of that cooperation. Our objective in the preliminary discussions was to preserve, and, where possible, to strengthen features which have evolved over the years in this partnership.

The nuclear weapons program is by far the largest of the Defense activities in the Department of Energy, and we began early to establish certain criteria which we thought had to be fulfilled by any reorganization. I will cite those criteria very briefly, and express to you my opinion that they are met by the bill; and, then will be glad to take your questions for a limited period of time, as earlier indicated.

Our criteria were: First to improve, not just maintain, but improve the ability of the programs to function effectively within the government.

Second, to maintain the important strictures and intent of the Atomic Energy Act.

The nuclear weapons program throughout its history has had responsibilities, in addition to meeting Presidentially approved defense requirements, to develop, produce and assure lifetime reliability of these weapons.

These other responsibilities include maintaining the nuclear weapons technology base, conducting aggressive research and development programs, insuring proper handling of restricted data and providing unconstrained expert judgments on these matters, especially regarding safety and security. That was the second of the criteria.

The third was to improve and maintain, over the long term, the technical quality of the nuclear weapons enterprise. That is the people and the facilities who have been assembled over the years and who are an excellent team. This would be done by adequate funding to support a stable level of effort of research and development program and by a management style appropriate to the long-range needs required by these programs.

We also said that meeting these criteria would require that: The entire nuclear weapons complex, laboratories, Nevada test site, weapon, and nuclear materials production plants, all of these should continue to be managed as a unified entity. That is secured by the bill.

Leadership of the programs would be at a very high level within its organization, not submerged within the organization that has other interests, and that is secured by the bill.

The military role in the program, as specified in the Atomic Energy Act and as embodied by the Director of Military Applications and the functions of the Military Liaison Committee, which has worked well, be preserved; and that the budget of the nuclear weapons program be treated as a separate and discrete part of the organization's overall budget. It should not be traded off against other activities of the organization, and we believe that criteria and that feature has also been met by the bill.

The naval reactor program, one of the others with a long history of intimate association with the civilian nuclear energy programs in the Department and its predecessor organizations, we felt, should be preserved intact. An active duty admiral serves jointly as Director of those naval propulsion programs and as the Deputy Assistant Secretary for Naval Reactors in the Department of Energy. We think the continued effectiveness and high standards of safety and economy of resources are best served if that program remains closely linked with a vigorous civilian nuclear reactor program, and that is secured. So the proposed reorganization meets all these criteria.

The nuclear weapons program is intact. The naval reactor program keeps its close relationship with civilian nuclear power activities, and the special military roles of these programs are maintained.

It offers a good balance between close ties to a Cabinet level official and sufficient authority to prevent these from being simply submerged in an organization with other priorities and other interests.

The head of the nuclear weapons program would report directly to the Secretary of Commerce, and the programs would benefit from Cabinet-level access and review.

I think that under all of the circumstances, we feel that our criteria have been met. The proposed reorganization also addresses our concerns regarding energy availability during time of crisis and the naval petroleum reserve, the strategic petroleum reserve, and the emergency preparedness functions will be the responsibility of an Assistant Secretary whose job it would be to reduce our vulnerability to energy supply interruptions.

We have no doubts that the proposed reorganization fulfills the fundamental objectives. Of course, in the final analysis, success depends on the quality of the leadership and the availability of resources. With the arrangements that are provided by the reorganization, we think we will be able to assure that the defense programs currently in the Energy Department will have the fine, effective leadership that they have had and that will be needed to work with Congress and our Department to provide sufficient resources to enable us to fulfill our critical national security requirements.

Mr. Chairman, I would like to have this statement in full published in the record. That is as brief a summary, I think, as I can make of it. I will be glad to try to take your questions.

Chairman ROTH. It will be included in its entirety.

Because of your time constraints, I would ask each Senator to ask one question.

We will take the Senators in the order that they appeared.

Mr. Weinberger, as you well know, the nuclear weapons programs are highly technical, sensitive programs, vital to our national security. Some people have proposed that it is a mistake to have these programs separate from the Defense Department. Do you agree that it is important for these programs to continue in a civilian department?

Mr. WEINBERGER. Oh, yes. They have ever since they were initiated. They have never been under the Defense Department as a whole, and we think that the relationships that they have with civilian energy requirements for safety and with security all dictate that they ought to be separate. They all have unified management, and that would be preserved.

Chairman ROTH. Senator Jackson?

Senator JACKSON. This is not a question, but a comment. You are going to see the Norwegian Defense Minister.

Mr. WEINBERGER. Yes, sir.

Senator JACKSON. I have an important energy suggestion: Norway has enormous gas reserves. As you know, in 1980, they discovered the largest gas fields in the world. I would hope that a real effort would be made to encourage the Norwegians, in cooperation with NATO countries, to really push their gas program so we wouldn't be buying gas from the Soviets, which will give the Soviets some $8 billion in hard currency earnings annually.

Mr. WEINBERGER. Senator, I am delighted to be 100 percent in agreement with you, and it is item 1 in my briefing book.

Senator JACKSON. Good. That is an important energy item.

Mr. WEINBERGER. Without any question, yes, sir.

Chairman ROTH. Senator Cohen?

Senator COHEN. Secretary Weinberger, the cheapest barrel of oil that we can purchase is the one we don't have to purchase, and that is one of the reasons why so many of us have been concerned about conservation efforts in recent years. Yet there seems to be some downgrading of that concern within the administration.

I was wondering in January of this year, the GAO completed a study on the status of the energy conservation investment program, the ECIP.

They concluded that a substantial amount of ECIP funds have been transferred or made available for nontransfer to nonconservation projects. Specifically, the report stated that about $79 million in fiscal years 1979 and 1980 ECIP funds had been reallocated or made available for reallocation to other military construction projects. I know DOD has disputed that figure of $79 million, but it did agree that better management of this program was certainly warranted. I was wondering, what has been done by DOD to improve the management of the program so that we don't have a misallocation of energy conservation programs under the Department?

Mr. Weinberger. We certainly would not want that to happen. We don't feel that the transfers that are involved here will in any way minimize or reduce the efforts that we make for energy conservation. I am very pleased and proud of the fact that the Department of Defense has won several awards for energy conservation in the administration of its own programs, and we would have the same kind of liaison that we have had with the Department of Energy and with its predecessors in administering the weapons programs.

A major part of our effort has always been to try to conserve as much energy as possible because we know, perhaps because of our responsibilities, certainly as well as anyone, the importance of doing just that. I don't have any hesitancy in agreeing fully with you that this has to be in the forefront of all of our programs, both the ones that are being moved from energy to commerce, as well as for our own programs.

As I say, I have been very pleased with the awards and with the other recognition that has come from the energy conservation programs that we have within the Department, and we have the ability to try to maintain that kind of approach in the administration of these programs that would be transferred.

Senator Cohen. Has any attempt been made to restore that $70 or $79 million?

Mr. Weinberger. I would have to get that specific item and get you a particular answer on that. I don't have that item in mind. I don't know what you are referring to directly, but we will certainly supply an answer in much more detail on that specific item.

[The information referred to follows:]

The Energy Conservation Investment Program projects are payback driven and technically volatile. A snapshot audit can lead to distortions of potential problems, therefore. Page 5 of the GAO report identifies $78.4 million in the fiscal year 1979 and 1980 programs which could be made available to other projects by ECIP project cancellation, scope reduction or deferral. Our current audit indicates that only $44.0 million may possibly become available. While this amount is certainly significant, the decrease since the audit indicates the dynamic nature of the program and the effort being made by the Services to accomplish all possible conservation projects.

The reallocation of military construction ECIP funds is only done as a result of these funds being made available due to projects becoming uneconomical at some time after appropriation. Since they are military construction program projects, the funds from such projects follow the strict reallocation guidelines directed by Congress. We are concerned that we make the most effective use of our energy conservation funds and are strengthening the management of what we believe to be an already strong conservation program.

Chairman **Roth**. Senator Pryor?

Senator **Pryor**. Mr. Secretary, I do have one question: According to my rough calculations regarding DOE, we will expend about $30 billion for the research, development, and production of nuclear warheads in the next 5 years. That is a 231-percent increase over 1980.

How much is the Department of Defense planning to spend for the weapons systems over the next 5 years to deploy and deliver these nuclear warheads?

Mr. **Weinberger**. I would have to get the specific amount for you, sir. There are a number of different systems that are planned. Some are not yet authorized. We review those constantly, but I can get you our basic plan as of now.

If the President's proposals for reductions of some of these weapons can be accepted, those predictions would, unfortunately, come out less than they are now.

But I can get you the amounts that are in our tentative 5-year projections for the systems themselves, as opposed to the warheads.

Senator **Pryor**. Thank you, Mr. Secretary.

Chairman **Roth**. Senator Stevens?

Senator **Stevens**. I will pass, Mr. Chairman.

Chairman **Roth**. Senator Rudman?

Senator **Rudman**. I have one question that I believe is of a classified nature.

I will submit that for the Secretary to answer for the record.

Mr. **Weinberger**. We will get an answer to you promptly.

Chairman **Roth**. Senator Mattingly?

Senator **Mattingly**. No, thank you.

Chairman **Roth**. Mr. Weinberger, I know you have to leave. It is my understanding that Dr. Wade will continue to answer any questions that might be relevant to the Defense Department.

Mr. **Weinberger**. He has one further advantage: He knows everything he is talking about.

Chairman **Roth**. At this time it is the intent of the Chair to call upon each of the Secretaries and on Mr. Wright to give their testimony, and then we can question them as a panel.

Senator **Jackson**. Could we leave the record open for submission of questions, Mr. Chairman?

Chairman **Roth**. Yes, we will.

Senator **Jackson**. In the interests of time.

Chairman **Roth**. In the interests of time, we will leave it open for the Senators to submit questions.

At this time, I would call upon Secretary Edwards to present his statement.

Mr. **Edwards**. Mr. Chairman, members of the committee, it is a pleasure to be here today to discuss S. 2562, the Federal Energy Reorganization Act of 1982. This day is the culmination of the efforts we have made over the past 18 months to reorient the involvement of the Federal Government in the Nation's energy picture.

Before I begin my formal presentation, and I am sorry the chairman had to step out, I want to express our appreciation to Chairman Roth for his outstanding assistance in helping us to bring this proposal before the Senate. We, indeed, appreciate his counsel, and we believe that the consultations which have occurred over the past few months, in which the Senator played such a vital role, have contributed significantly to the reorganization proposal that we are here to discuss today.

As I have stated on numerous occasions, one of my primary objectives in accepting the President's call to come to Washington was to reduce the Federal role in energy activities in this country by placing greater reliance on the free market in meeting our national energy needs.

We have achieved significant progress toward this objective, and I believe this legislation provides a framework in which our momentum can be maintained so that our goal of reorganizing the management of energy responsibilities can be best achieved. As Secretary Baldrige's testimony will point out, merging the Department of Energy with the Department of Commerce will strengthen our ability to handle our remaining energy problems, as well as strengthening our foreign trade in energy and high technology.

We need to look to the future and to the potential benefits to be gained by this legislation, but I believe it would be helpful to review briefly some of our experiences and the lessons learned over the last 10 years about energy. It is that experience which has led us to propose this legislation you are considering today.

Our complacency about energy—despite signs of an impending tightening of oil supplies—was given a rude shock in 1973 when the Arab oil-producing nations imposed their embargo and OPEC raised world oil prices. A sense of vulnerability engulfed the Nation and the public demanded some visible assurance that their Government was not sitting idly by while they sat in long gas lines.

In retrospect, even though the Government did not really know what to do, it was anything but idle. Its first reaction was to continue the oil price controls that had been instituted as part of the economic stabilization program—an action which was intended to shield us from market realities.

Those price controls in a time of shortage increased the demand for oil. This in turn led to still more shortages and a bureaucratic nightmare of entitlements and allocations that distorted rational patterns of distribution and pricing. Instead of filling the strategic petroleum reserve, we filled the Federal Register. These actions provided insufficient incentives for conservation and reduced incentives for the private sector to develop new energy forms and technologies.

The realization that regulations were not the answer led to our second reaction: The Federal funding of numerous demonstration and commercialization activities. Although this was intended to accelerate the development of conventional sources and new energy technology by the private sector, the record shows that the Government ignored market tests for selecting technologies for advanced development. Instead, it found itself channeling more and more Federal dollars into technologies for which there would be no adequate market without still further Federal support. Some were projects destined to remain just on the verge of commercialization for the foreseeable future.

The third reaction was to create a separate energy bureaucracy by establishing new agencies such as the Federal Energy Administration and the Energy Research and Development Administration which, along with the Federal Power Commission and components of various other agencies, became the building blocks for a Department of Energy.

The establishment of a Department of Energy brought most Federal energy functions under one umbrella for the first time. It was a predictable reaction given the jolts that our national pride and our pocketbooks suffered in the seventies and given the fragmented distribution of energy responsibilities among various Federal agencies. But the experiment has not worked. Oil imports rose from 4.5 million barrels per day in 1972 to 8 million barrels in 1980—hardly evidence that the Federal Government was very successful in solving our energy problems.

The fact that the 95th Congress decided to subject the new Department of Energy to a sunset review after 5 years—and that some Members of Congress wanted the Department of Energy automatically to go out of business—suggests that Congress realized the Department of Energy was an experiment. Congress sensed, and properly so, in my opinion, that the energy crisis was not going to be permanent. We are not ready to declare the end to the energy crisis, but we are optimistic about eventually putting our most serious problems behind us.

We have learned many important lessons in the past decade. One is that energy cannot continue to be viewed as a special case divorced from national and international economic policy considerations. Energy is a commodity, not a cause. The long-term solutions that we seek for meeting our Nation's energy needs must be developed in tandem with our efforts to analyze and respond to broad domestic and international economic trends. The implication of this lesson is that the agency responsible for energy activities must itself be involved in broader issues. Energy threatened to become a vested interest.

Second, we have learned—perhaps I should say "relearned"—that the marketplace will normally give us the most efficient mix of energy production and consumption, even during occasional periods of energy supply imbalance, and that prudent planning will be discouraged if the public is led to believe that the Government will always guarantee artificially low-priced energy. That is, we have learned that the agency responsible for energy activities must be perceived as one which emphasizes private sector response and economic efficiency, rather than marketplace intervention.

Third, we have learned that the best way the Federal Government can achieve an orderly economic environment is by removing regulatory obstacles whenever this would not endanger the public health and safety, and by developing sound and stable economic policies that will encourage the public and all segments of the business community to make prudent consumption and investment decisions. There is a big difference between economic analysis and market management. The Department of Energy has the reputation of specializing in the latter.

After a decade of turmoil, we have finally reached the point where our energy problems are no longer being magnified out of proportion. This administration is very proud of that. I am not ready to announce that the energy crisis is over—that would send the wrong signal—but this legislation will enable us to manage our energy problems successfully. We know what the remaining problems are, and we know how to take care of them.

Our energy policy has two pillars—conservation and production. They are equally vital, and, fully complementary. The efforts of Americans to conserve and those of industry to produce more energy are both driven by price, not by Government fiat.

We are confident that in the years ahead Americans will continue to use energy more efficiently and that there will be growing incentives to produce more energy and to commercialize new technologies. This reorganization proposal will strengthen those trends.

As a result of these experiences, we have taken a number of specific corrective measures since January 1981 to reduce the level of intervention by the Federal Government in national energy activities. A few of these accomplishments are particularly noteworthy.

One of the most important achievements was the immediate deregulation of pricing and allocation of crude oil and petroleum products in January 1981. Since that action was taken, prices have stabilized, supplies have been adequate and oil company profits have declined. The Federal bureaucracy required to administer these controls has been eliminated. Only those resources required for completion of enforcement actions related to regulation in place between 1973 and January 1981 remain.

Large reductions in energy development and demonstration have occurred in areas where the private sector is better equipped to conduct these activities and where the test of the market alone should determine priorities.

Consistent with the administration's policy that the Government should primarily sponsor long-term, high-risk research, we have also sharply reduced the Government's involvement in large, capital-intensive demonstration facilities and commercialization ventures.

Efforts to reduce regulatory and data collection burdens on the private sector have also been successful. We have removed some 200 burdensome, counterproductive regulations. The cost to the private sector of filling out unnecessary forms was reduced by 17 percent in 1981 and we are well on our way to meeting a further 15 percent reduction in 1982, for a total reduction of over 5 million person-hours of reporting burden.

Perhaps the most dramatic changes that have occurred during the last year and a half are reflected in our fiscal and staffing figures. When compared to the previous administration's budget figures for fiscal years 1981, 1982, and 1983, this administration intends to spend $10.4 billion less. We have already achieved a reduction of more than 3,000 Federal employees in the Department of Energy since January 1981.

Speaking of the stability for ongoing energy and defense programs, this legislation assumes transfer to Departments of Commerce, Interior, Justice, and Agriculture of the Department of

Energy's continuing programs. The administration has been concerned from the outset of our reorganization planning efforts that an environment be created within receiving departments that maintains the stability of continuing programs so that disruptions will be minimized.

We are convinced that the organization and management principles reflected in the legislation are adequate to assure such stability, and I believe the statements you will hear from Secretary Baldrige, Secretary Weinberger, and Deputy Director Wright will reinforce these conclusions.

In short, it is my firm belief that this legislation provides the proper focus for coordinating energy policy development and analysis, including the continuance and strengthening of important international responsibilities. By establishing an Assistant Secretary of Energy Emergency Planning, it also provides a solid basis for continuing the efforts we have made in energy emergency preparedness as well as the progress we have made in filling the strategic petroleum reserve.

In both the energy research and development and defense programs areas, I believe the organization and management structure outlined in the bill will serve our country's needs and will establish an institutional framework that will foster the stability which is so critical to the success of these programs. In large measure, the legislation provides for a transfer of our existing organization and program structure from the Department of Energy into the Department of Commerce. Long-standing contractual and working arrangements with national laboratories and other Government-owned, contractor-operated facilities will be maintained. Furthermore, this organizational arrangement will also assure ready access to the Secretary of Commerce.

In conclusion, Mr. Chairman, I believe this reorganization legislation together with other initiatives taken by this administration will permit us to better carry out those essential energy tasks which are the responsibility of the Federal Government in a very efficient way, while leaving the remaining energy responsibilities to the genius and dedication of the American people.

Mr. Chairman, thank you for this opportunity.

That concludes my statement.

Chairman **Roth**. Thank you, Mr. Secretary.

Next, we will bear from a man who wants to be on the hot seat. In business he is known as one of the best managers in the Nation today.

I am very pleased at this time to call on you, Secretary Baldrige.

Mr. **Baldrige**. Thank you, Mr. Chairman.

Before I begin my remarks, I would like to take a moment to thank you on behalf of the administration. We appreciate the help you have given us in putting this together and making these hearings possible.

I would like to also have Senators Baker, Packwood, McClure, and Tower all know that we owe them our gratitude for their support and assistance, as well.

I think the best way I can show my gratitude is to not read the fine statement my staff has prepared. I will make a few comments before moving on.

It is true, I do come from a background of management, some 30 years in companies with 15 to 20 divisions; different market places; different kinds of divisions in 30 different counties, and I am as sure as I am sitting here that this move is going to strengthen the performance of energy functions by the U.S. Government.

I say that for some very understandable and some very practical reasons.

First, obviously, a merged cabinet spot is smoother than either of the two can be separately. For example in the case of Commerce and Energy, the Secretary of Commerce is on five out of six cabinet councils.

Whether it is this administration or a new one, if Energy came to Commerce, it would be the largest component of the whole Commerce Department. There is no way it would be buried someplace. It would be one of our strongest efforts, and there is no way that the energy concerns, whatever policy we recommend, would not be heard in this administration or any other administration if combined with Commerce.

The third point I would like to make is on the infrastructure. What you see up there is a very clean structure compared to the present setup. The responsibility and the accountability for Defense is kept in one area. The responsibility and the accountability for energy research is kept in another area.

In both these areas, it is very easy to pinpoint who is in charge of what programs and to follow and check up and take the appropriate action.

It is not a top-heavy organization as one Senator mentioned this morning. With respect to Executive levels 1-5, we have reduced those numbers from, I believe it is 18 to 9 or 17 to 9, almost in half. But we have increased some. The top management in charge of defense now is the Deputy Secretary, Level 2.

In charge of energy research is a Deputy 2. There are more undersecretaries, and, in my opinion, Mr. Chairman, that is exactly where we need the horsepower and the brainpower. It gives us the ability to attract the top people in the country to come and take those kinds of jobs.

I want people in those jobs at a high enough level so that you can attract the best ones. I want them worrying about the same things at night as I am when this transfer takes place, if it should.

Fifth—and this is one of the most important points—the backup to energy from the Commerce Department is tremendously significant. It occurs in almost every area. We have the Under Secretary for Economic Affairs at Commerce. It has been strengthened substantially since this administration has taken over. We have a first-rank economist running it.

The Bureau of the Census, the Bureau of Economic Analysis, and the Bureau of Industrial Economics all have the statistical ability as well as experience with the GNP, and perform worldwide sectorial studies that can enable us to back up any policy recommendation that we make in the future on energy and to back it up with the facts and figures that will let us present our case as strong or more strongly than it has ever been presented before.

In international trade, as you know, we have an International Trade Administration of over 2,000 people tbat includes 62 foreign commercial service officers abroad, just in one particular area.

In nuclear reactor development, we have new orders coming in for our companies in that business. If we want to sponsor nuclear nonproliferation, we have to play in that game abroad and the International Trade Agency can help in that area.

As to energy information, we would make that report to the Under Secretary for Economic Affairs, where its activities would be coordinated with those of Bureaus that I mentioned before.

That would also help our present departments if we did that.

Finally, in strategic planning, we will have an Assistant Secretary for Strategic Planning for strategic materials. The Commerce Department has had a responsibility for everything except energy now.

We would bring over the energy responsibility for their emergency planning, and both would strengthen each other.

On savings, I have heard people say, "What savings can you prove?"

We are not attempting to make this move on savings alone. Secretary Edwards has already pointed out that we can save billions of dollars. We think that we can verify, identify, as Deputy Secretary Wright will mention later, some quarter of a billion dollars in savings over the next 3 years, but there is another three quarters of a billion dollars of areas that we think would be very ripe for savings that we should study.

I think we will be able to get significant savings out of there.

As far as guaranteeing savings today, I would rather underpromise and overdeliver. I can promise in the area of a quarter of a billion dollars over the next 3 years.

I have heard a lot of talk today about signals: what kinds of signals we are sending; what kind of symbols. I have always been more interested in getting the job done than worrying about symbols and signals.

The proof of the pudding is in the eating. I might say that of the 23-plus countries that are involved in nuclear and other kinds of energy, in the international forum, most of them—I think all of them but three, four, or five, somewhere in that area—have now combined their industrial department, their commerce department, or whatever they call it, with their energy department.

So we would be with the majority, not the minority in that case. Because most of them have realized that commerce and energy are really one and the same. They should back each other up in policy and in implementation and not be kept separate.

Energy policy simply cannot take place in a vacuum. It has got to take place with all of the other considerations that are business and commerce kinds of decisions and be backed up with the proper kind of economic planning.

We think, in closing, Mr. Chairman, that these new resources that the energy function of the U.S. Government is responsible for will definitely be stronger as a result of this move.

Without having the figures right in front of me—I believe we have saved as much in energy costs in the United States because of the actions of our companies and individuals in the last few years as have any of the countries have that have experienced a 100- or 200-percent increase in their own budgets.

We don't think that just throwing money at something is the best way to solve it. We feel that organization and the proper kind of an organization, the proper kind of backup is the best possible way to have the energy concerns of this country lifted to the highest level and lifted effectively so that they can be implemented.

Thank you, very much.

Chairman ROTH. Thank you, Secretary Baldrige.

Mr. BALDRIGE. May I ask, Mr. Chairman, before you start, that the prepared statement that I didn't give be included in the text?

Chairman ROTH. Without objection.

At this time I would like to call upon the Deputy Secretary of OMB.

I don't know whether Joe Wright left Commerce because he foresaw what was going to happen and wanted to avoid the hot seat or what, but we are delighted to have you here, Mr. Wright.

Mr. WRIGHT. Thank you, Mr. Chairman.

That is the first time that I have ever heard anybody describe OMB as not being the hot seat. I certainly appreciate it. I join both Secretary Baldrige and Edwards in thanking you and your colleagues personally for being with us during these long discussions that we have had over the past 6 months where we have discussed this proposal with over 100 Senators and Congressmen, and what you see in front of you, as you so well know, is quite different than what we first started with.

As you know, Mr. Chairman, the role of the Deputy Secretary and the Department is to make sure that his boss looks good, and Secretary Baldrige just took away most of the good points that I was about to raise.

I would like to take my testimony, put it in the record, and just highlight some of the points which I think are important.

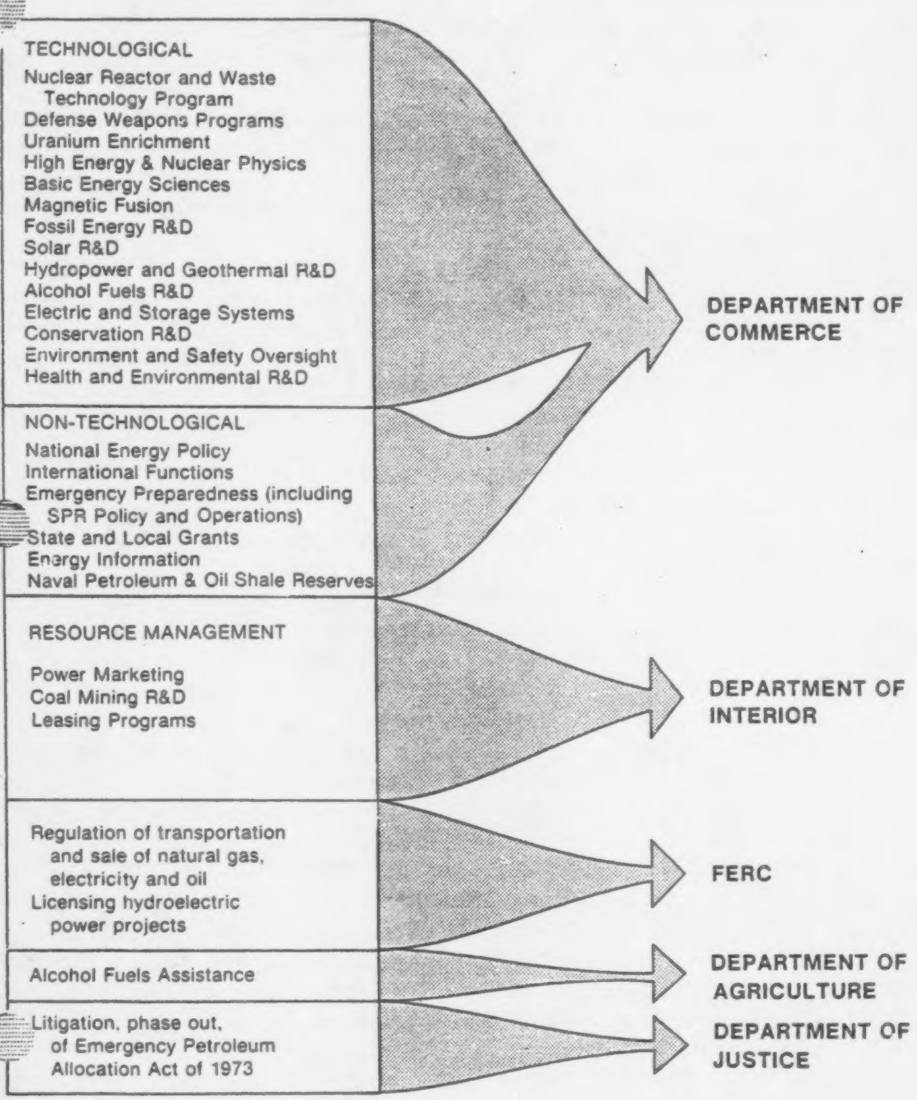
The reorganization proposal is over to your left, which would be the end structure. It does evolve around a defense weapons program, an energy program, which focus primarily on policy and research, on combining the Energy Information Administration with the other information data gathering and policy units within the Department of Commerce; and finally, putting somebody in charge of strategic planning for the U.S. Federal Government.

It does also involve a reduction in Presidential appointee levels, PSA levels, from 42 down to 33, so that is 9, and it is a more streamlined structure, as Secretary Baldrige mentioned.

We have handouts for each one of the members of the committee in a package, and one of those which I would like to submit for the record is a chart entitled "Reorganizing Energy Programs," which shows exactly where each one of the major programs and project areas goes within the proposed reorganization.

[The chart referred to follows:]

REORGANIZING ENERGY PROGRAMS



TECHNOLOGICAL

Nuclear Reactor and Waste Technology Program
Defense Weapons Programs
Uranium Enrichment
High Energy & Nuclear Physics
Basic Energy Sciences
Magnetic Fusion
Fossil Energy R&D
Solar R&D
Hydropower and Geothermal R&D
Alcohol Fuels R&D
Electric and Storage Systems
Conservation R&D
Environment and Safety Oversight
Health and Environmental R&D

NON-TECHNOLOGICAL

National Energy Policy
International Functions
Emergency Preparedness (including SPR Policy and Operations)
State and Local Grants
Energy Information
Naval Petroleum & Oil Shale Reserves

DEPARTMENT OF COMMERCE

RESOURCE MANAGEMENT

Power Marketing
Coal Mining R&D
Leasing Programs

DEPARTMENT OF INTERIOR

Regulation of transportation and sale of natural gas, electricity and oil
Licensing hydroelectric power projects

FERC

Alcohol Fuels Assistance

DEPARTMENT OF AGRICULTURE

Litigation, phase out, of Emergency Petroleum Allocation Act of 1973

DEPARTMENT OF JUSTICE

Mr. WRIGHT. As we developed reorganization plans, we have been very careful to preserve—in many cases actually strengthen—the critical features of the Federal energy program itself.

To begin, we have tried to preserve close coordination between the nuclear weapons program and the Defense Establishment, I believe, as Secretary Weinberger mentioned, and to strengthen that program.

Our proposal upgrades the level of top civilians engaged in nuclear weapons from executive level 4, assistant secretary, to an executive level 2, deputy secretary.

Mr. Chairman, that is the highest status it has ever had in four different organization settings over the past 45 years.

Our proposal will also establish the Federal Energy Regulatory Commission as an independent agency. But, Mr. Chairman, the Secretary of Commerce will have the statutory right to intervene in commission proceedings and the right to initiate rulemakings before that commission, because Federal energy regulation in the past has intervened heavily in private market decisionmaking with some very questionable results.

The energy gasoline coupon is a good example.

Mr. Chairman, we had 4.8 billion of these coupons which were printed, and I don't know whether or not the members of the committee have seen this.

If you haven't, I would be more than happy to pass them around. As you will notice, they are not numbered, so they couldn't be used anyway. At that time, I believe the price of gasoline was around 35 cents a gallon. You could use these in dollar change machines.

Next, we intend to see that the Federal Energy Information Administration is preserved as a separate organizational unit that will be of equal stature and assured integrity to comparable units in the Department of Commerce, such as the Bureau of the Census and the Bureau of Economic Analysis.

We believe, Mr. Chairman, that energy information will be strengthened as a result of this move through such means as shared census and survey-taking expertise, improved administration economic forecasts and more comprehensive trade planning through sharing of information on the economy and energy use.

Mr. Chairman, I also have in our foldouts—and I would like to put these in the record—a couple of fact sheets which are entitled "Energy and Econonic Policy Support" and "Information and Analysis."

[The information referred to follows:]

Fact Sheet

ENERGY AND ECONOMIC POLICY SUPPORT
(FY 1982 data)

Department of Energy

Office of Policy, Planning, and Analysis

Personnel: 137

Budget: $14.7 million
($9.1 for contract studies)

Note: the PPA staff directly supports the Secretary of Energy and is responsible for cross-cutting policy analyses. Program units within DOE also contain small policy supports staffs.

Department of Commerce

Office of the Chief Economist

Personnel: 56

Budget: $3.4 million

Office of Productivity, Technology, and Innovation:

Personnel: 22

Budget: $1.5 million

Assistant Secretary for International Economic Policy

Personnel: 263

Budget: $11 million

Note: the units identified above are those principally involved in domestic and international economic policy development. Within DOC there are also policy staffs in NOAA, NTIA, MBDA.

On the domestic economic side, substantial analytical support is provided by the Bureau of Economic Analysis and the Bureau of Industrial Economics (See Fact Sheet on "Information and Analysis.")

Fact Sheet

INFORMATION AND ANALYSIS
(FY 1982 data)

Department of Energy		Department of Commerce	
Energy Information Administration:		Bureau of the Census:	
Personnel:	584	Personnel:	2413 (1800 on economic statistics)
Budget:	$79 million (64% in contracts)	Budget:	$145 million
No. of different surveys:	65	No. of different surveys:	many hundreds
Scope of business coverage:	110,000 reporting units in typical year.	Scope of business coverage:	3 million firms contacted in Census years; 200,000-300,000 firms contacted in typical year.
Econometric/industry/ analytic modelling capability:	general economic models-8; industry/analytic models-33 (all in segments of energy sector)	Econometric/industry/ analytic modelling capability:	See BEA
Areas covered:	coal petroleum natural gas electricity solar energy analysis and modelling energy consumption and utilization	Areas covered:	all manufacturing industries mineral industries construction economic surveys: -- transportation — enterprise statistics -- country business patterns — minority owned business general business — wholesale trade -- retail trade -- service industries foreign trade: -- exports imports agriculture government energy

FACT SHEET

INFORMATION AND ANALYSIS
(FY 1982 data)

Department of Energy	Department of Commerce

International Trade Administration:

Various components of ITA are involved in international economic and industry data collection and analysis activities and the planning of export promotion programs based on these analytical activities.

The number of personnel involved in these various activities is:

-- export promotion	170
-- international sector policy	38
-- trade information and analysis	152
-- trade agreements	70
Total	430

Scope of business coverage:	ITA constantly gathers business information through: -- 50 U.S. field offices -- 66 Foreign Commercial Service stations -- State Department's overseas network
Econometric/industry/ analytic modelling capability:	Trade models-2; foreign economy models-26.

Other:

Commerce also has small staff resources devoted to economic and industry data collection or analysis in:

NTIA
MBDA
NOAA
PTO
NBS
NTIS
USTTA

Fact Sheet

INFORMATION AND ANALYSIS
(FY 1982 data)

Department of Energy	Department of Commerce
	Bureau of Economic Analysis:

Personnel:	450
Budget:	$17 million
No. of different surveys:	39 Note: much of the data reported and analyzed by BEA is collected by other government agencies and private organizations.
Scope of business coverage:	Varies. Plant and equipment survey, for example, has 15,000 respondents.
Econometric/industry/analytic modelling capability:	General economic models-12; industry/analytic models-1 (national input/output model-538 industries).
Areas covered:	national income, product and wealth accounts interindustry accounts (input/output) regional accounts business outlook data statistical indicators: -- cyclical — long term current business analysis balance of payments accounts international investment estimates

Fact Sheet

INFORMATION AND ANALYSIS
(FY 1982 data)

Department of Energy

Department of Commerce

Bureau of Industrial Economics:

Personnel:	170
Budget:	$8 million
No. of different surveys:	93 industry analysts in constant touch with manufacturing industries.
Econometric/industry/ analytic modelling capability:	5 models.
Areas covered:	basic Federal source of industry-specific information research, and analysis. industrial monitoring and forecasting competitive assessment of industries industrial mobilization support industry-specific foreign trade analyses regulatory and legislative analysis business liaision support

Fact Sheet

EMERGENCY PREPAREDNESS AND STRATEGIC PLANNING
(FY 1982 Data)

Department of Energy

Assistant Secretary for Environmental Protection, Safety, and Emergency Preparedness

Energy Preparedness and Response Program

Personnel: 89

Budget: $10.2 million

Strategic Petroleum Reserve

Personnel: 192

Budget: $3.8 billion

Naval Petroleum Reserves

Personnel: 120

Budget: $213.1 million

NOTE: The SPR program is responsible for 263 million barrels of oil in storage in the ground.

The Naval Petroleum Reserve program sales produced receipts of $1.1 billion in 1982

Department of Commerce

Office of Strategic Resources

Personnel: 4

Budget: $222,000

Office of Industrial Resources Administration

Personnel: 6

Budget: $300,000

NOTE: These resources will be combined under the proposed Assistant Secretary of Commerce for Strategic Planning.

Office of Strategic Resources, under the Assistant Secretary for Productivity, Technology, and Innovation conducts and coordinates studies on strategic resources, provides staff support for Cabinet Council on Natural Resources and Environment, and acts as liaison with minerals and materials users.

The personnel and resources of OIRA shown are those involving emergency industrial planning, the National Defense Stockpile, and the National Defense Executive Reserve program.

EMERGENCY PREPAREDNESS AND STRATEGIC PLANNING
(FY 1982 Data)

Department of Energy	Department of Commerce
	NOTE: (Continued) The organization of the Assistant Secretary for Strategic Planning will be a coordinating and directing unit for the several Commerce units dealing with strategic materials and planning, including: o Bureau of Standards on materials substitution o ITA on international commodities o NOAA on deep-ocean minerals mining o Bureau of Industrial Economics on economic analysis support on materials industries.

Fact Sheet

INTERNATIONAL ACTIVITIES
(FY 1982 data)

Department of Energy

Office of the Assistant Secretary for International Affairs:

Personnel: 91

Budget: $4.9

Major functions:

Support for International Energy Agency

Support for International Atomic Energy Agency

Support for Nuclear Energy Agency

Support for Cooperation in the Peaceful Uses of Nuclear Energy

Multilateral arrangements with NATO

Support for bilateral technical/scientific agreements

Non-defense intelligence and analysis.

International energy market analysis

Department of Commerce

International Trade Administration:

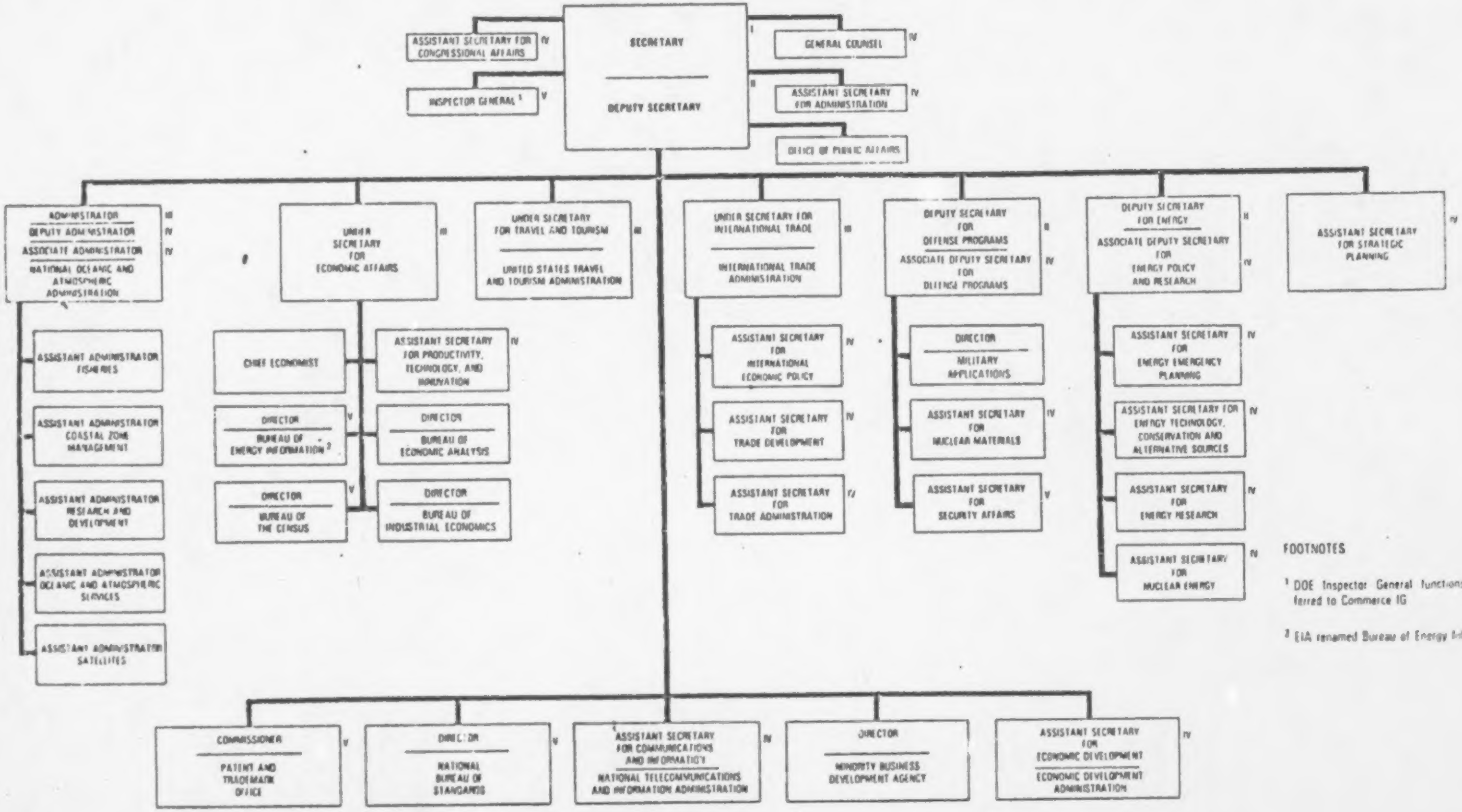
Major functions:	Personnel	Budget (Millions)
Export development	459	$28.6
U.S. and Foreign Commercial Services	1030	49.0
International economic policy	263	38.9
Export administration	225	11.1
Import administration	173	8.1
General administration	118	15.9
Total	2298	$151.7

ENERGY EMERGENCY PREPAREDNESS PLANNING AFTER REORGANIZATION

TASKS	PARTICIPATING UNITS
	(Participation by existing Commerce units underlined.)
(1) International supply forecasting	(1) Assistant Secretary for Energy Emergency Planning Bureau of Energy Information International staff of Associate Deputy Secretary for Energy Policy and Research
(2) Domestic supply forecasting	(2) Assistant Secretary for Energy Emergency Planning Bureau of Energy Information
(3) Domestic demand forecasting	(3) Assistant Secretary for Energy Emergency Planning Bureau of Economic Analysis (input/output characteristics) Bureau of Industrial Economics (specific industry information) Office of Chief Economist (macro demand assumptions)
(4) Supply/demand analyses; alternative scenario testing	(4) Assistant Secretary for Energy Emergency Planning Bureau of Energy Information Bureau of Economic Analyses (input/output and regional analyses) Bureau of Industrial Economics (specific industry analyses) Assistant Secretary for Strategic Planning (interactions with non-fuel strategic industries)

TASKS	PARTICIPATING UNITS
(5) Policy evaluation	(5) Associate Deputy Secretary for Energy Policy and Research Assistant Secretary for Energy Emergency Planning Office of Chief Economist (macro policy considerations) Assistant Secretary for International Economic Policy (trade policy considerations)
(6) Contingency planning	(6) Assistant Secretary for Emergency Planning Bureau of Industrial Economics (specific industry implications) Assistant Secretary for Strategic Planning (interactions with non-fuel strategic industries)
(7) Strategic Petroleum Reserves policy/ operation	(7) Assistant Secretary for Energy Emergency Planning Associate Deputy Secretary for Energy Policy and Research Bureau of Energy Information Bureau of Industrial Economics (status of specific industries under emergency conditions)

PROPOSED
U.S. DEPARTMENT OF COMMERCE


SECRETARY
DEPUTY SECRETARY
I
II
ASSISTANT SECRETARY FOR CONGRESSIONAL AFFAIRS IV
INSPECTOR GENERAL 1 V
GENERAL COUNSEL IV
ASSISTANT SECRETARY FOR ADMINISTRATION IV
OFFICE OF PUBLIC AFFAIRS
ADMINISTRATOR III
DEPUTY ADMINISTRATOR IV
ASSOCIATE ADMINISTRATOR IV
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
ASSISTANT ADMINISTRATOR FISHERIES
ASSISTANT ADMINISTRATOR COASTAL ZONE MANAGEMENT
ASSISTANT ADMINISTRATOR RESEARCH AND DEVELOPMENT
ASSISTANT ADMINISTRATOR OCEANIC AND ATMOSPHERIC SERVICES
ASSISTANT ADMINISTRATOR SATELLITES
UNDER SECRETARY FOR ECONOMIC AFFAIRS III
CHIEF ECONOMIST
ASSISTANT SECRETARY FOR PRODUCTIVITY, TECHNOLOGY, AND INNOVATION IV
DIRECTOR BUREAU OF ENERGY INFORMATION 2 V
DIRECTOR BUREAU OF ECONOMIC ANALYSIS
DIRECTOR BUREAU OF THE CENSUS V
DIRECTOR BUREAU OF INDUSTRIAL ECONOMICS
UNDER SECRETARY FOR TRAVEL AND TOURISM III
UNITED STATES TRAVEL AND TOURISM ADMINISTRATION
UNDER SECRETARY FOR INTERNATIONAL TRADE III
INTERNATIONAL TRADE ADMINISTRATION
ASSISTANT SECRETARY FOR INTERNATIONAL ECONOMIC POLICY IV
ASSISTANT SECRETARY FOR TRADE DEVELOPMENT IV
ASSISTANT SECRETARY FOR TRADE ADMINISTRATION IV
DEPUTY SECRETARY FOR DEFENSE PROGRAMS II
ASSOCIATE DEPUTY SECRETARY FOR DEFENSE PROGRAMS IV
DIRECTOR MILITARY APPLICATIONS
ASSISTANT SECRETARY FOR NUCLEAR MATERIALS IV
ASSISTANT SECRETARY FOR SECURITY AFFAIRS V
DEPUTY SECRETARY FOR ENERGY II
ASSOCIATE DEPUTY SECRETARY FOR ENERGY POLICY AND RESEARCH IV
ASSISTANT SECRETARY FOR ENERGY EMERGENCY PLANNING IV
ASSISTANT SECRETARY FOR ENERGY TECHNOLOGY, CONSERVATION AND ALTERNATIVE SOURCES IV
ASSISTANT SECRETARY FOR ENERGY RESEARCH IV
ASSISTANT SECRETARY FOR NUCLEAR ENERGY IV
ASSISTANT SECRETARY FOR STRATEGIC PLANNING IV
COMMISSIONER PATENT AND TRADEMARK OFFICE V
DIRECTOR NATIONAL BUREAU OF STANDARDS V
ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION IV
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
DIRECTOR MINORITY BUSINESS DEVELOPMENT AGENCY
ASSISTANT SECRETARY FOR ECONOMIC DEVELOPMENT IV
ECONOMIC DEVELOPMENT ADMINISTRATION

FOOTNOTES

[1] DOE Inspector General functions transferred to Commerce IG

[2] EIA renamed Bureau of Energy Information

BEST COPY AVAILABLE

Mr. WRIGHT. You can see on the "Energy and Economic Policy Support" factsheet, within Energy, there are 137 people who are involved in policy, planning, and analysis.

Within Commerce, between the Chief Economist, which has 56; the Office of Productivity, Technology and Innovation which has 22, and the Assistant Secretary for International Economic Policy, which has 263, you have quite an overlap in this area.

More important, on the "Information and Analysis" factsheet, the Energy Information Administration has 584 people, personnel, that are doing 65 surveys every year with 110,000 reporting units in a typical year.

They have 8 general economic models, and 33 industry analytic models. These are not tied in at the present time with any of the Department of Commerce models, Mr. Chairman.

Let me just highlight what those are.

At the Bureau of the Census, 3 million firms are contacted in the census years, and in noncensus years, you have 200,000 to 300,000 firms contacted, but they are not asking the industry specific questions that the Department of Energy is interested in. The Bureau of Economic Analysis has 12 general economic models and 1 industry/analytic model with 538 industries. These are not tied into either those macroeconomic models or the industry specific models of energy.

The Bureau of Industrial Economics has five of the econometric and industrial models, which are not tied in. The International Trade Administration over at Commerce gathers business information from 50 U.S. field offices, 66 foreign commercial service stations, and the State Department's overseas network. It has 2 trade models and 26 foreign economic models.

Mr. Chairman, it is time that we, I believe, took advantage of the resources that we have split between the two departments in order to use our ability of economic modeling and forecasting to do a better job in coming up with what are the likely energy scenarios of the future.

To continue, we plan for the close integration of the energy emergency planning with the $2.3 billion strategic petroleum reserves and the naval petroleum reserves, by maintaining their organizational linkage under a single Assistant Secretary.

We believe that the energy preparedness program can be generally strengthened through the access to studies by the Assistant Secretary for Strategic Planning and to those of the industry and economic specialists of organizations such as the Bureau of Industrial Economics.

I have already covered, to a certain extent, why I think the improved information on the front end will be a great boon to these units who have to do emergency planning and strategic planning. But I also have another factsheet, which I would like to submit for the record, which shows what each of these should have and which shows how energy and emergency planning is separated between the two departments by offices; and Mr. Chairman, a list of steps that we go through on strategic and emergency planning; it is this table right here that I will submit for the record.

It is divided right now between the two departments. I am saying if we are truly concerned about effective emergency and energy planning, then the least we should do is get these operations together where you have one organization that is held responsible for them.

Chairman ROTH. Your chart has been included.

You also made some reference to some factsheets earlier.[1]

Are you submitting them for part of the record as well?

Mr. WRIGHT. With your permission, Mr. Chairman, I would like to.

Chairman ROTH. Without objection.

Mr. WRIGHT. Program improvement will also come from linking the Office of the Assistant Secretary for International Affairs to Commerce's international activities.

Secretary Baldrige has already covered this.

I have one last fact sheet, Mr. Chairman, I promise, on the international activities that I would like to submit for the record.[2]

Chairman ROTH. Without objection.

Mr. WRIGHT. This shows that the Office of the Assistant Secretary for International Affairs in the Department of Energy has 91 personnel that are not effectively being represented, and they are not effectively using the International Trade Administration's capabilities which has 459 personnel in export development and 1,030 in the United States and Foreign Commercial Services.

Further, the Department of Commerce, Mr. Chairman, is responsible for carrying out the objectives of the Stevenson-Wydler Technology Innovation Act and is administering the National Technical Information Service which disseminates Federal technological information.

Complementing this responsibility capability is the Department of Energy's Technical Information Center which also distributes technical information from the DOE national laboratories and other research facilities.

One way or the other, Mr. Chairman, we should get those activities together to do a better job.

As Secretary Baldrige mentioned, we believe there is a wide range of potential management improvements—and I say "potential management improvements"—in cost savings.

Following the passage of FERA, we would plan to launch an intensive management improvement program. We are reasonably confident that we can save over $80 million a year or $250 million in lower costs over the next 3 years.

We further believe there is a good possibility that over the longer term, there are additional savings which could accumulate to as much as $750 million over that 3- to 4-year period of time.

I have as much desire as all the members of the committee for accuracy in this area, but it is very difficult to be precise without an indepth study since most of the savings are coming from consolidation in the areas such as the computer centers, and as you know, you have to be very careful to make sure that you do have compatable, particularly in the administration, the R&D and weapons computers prior to predicting exact savings.

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[1] See p. 29.
[2] See p. 36.

The areas the future savings would come from would be, first, administrative and program management improvements. Let me give you an example: In Commerce, the data gathering and analysis programs, which I referred to earlier, will cost us about $600 million over the next 3 years. DOE's energy information activities will cost us about $350 million. There should be significant savings, Mr. Chairman, in the consolidation of those activities. They basically do much of the same thing.

The second area of great potential, as I mentioned, is data processing. The Departments of Energy and Commerce are both major users of ADP services, and their combined budget over the next 3 to 4 years will be over $2 billion. They have equipment valued at over $900 million and plan now to acquire an additional $600 million's worth over the next few years. There should be major savings and improvements on a consolidated basis in that area of activity. Again, that will take careful study.

The third area we are looking at is streamlining field operations. The Department of Commerce has over 16,000 field employees, while Energy has 5,500 employees in over 70 sites. Energy now has eight operating/administrative field offices, and Commerce is just now consolidating administrative support activities on a test basis in the Northwestern United States. There should be substantial savings from the consolidation of those field services.

Mr. Chairman, I hope I have given you a little bit more of a feeling of where the overlap of the two departments is, and more importantly, how they can play an inportant role together in not only representing American business, but representing American energy interests.

It has been a pleasure to have the opportunity to present to this committee our plans and the benefits we foresee. That concludes my testimony.

Chairman ROTH. Thank you, Mr. Wright.

It is our intent to have questioning on the first round for the entire panel to be limited to 10 minutes each.

Mr. Baldrige, as you know, there has been considerable concern as to whether this merger of Energy into Commerce is a signal that we are downgrading the role of government with respect to energy.

What do you believe the role of the government should be in insuring that there is an adequate energy supply at an acceptable price?

Mr. BALDRIGE. That question has a lot of implications, Senator. We have stated that the free marketplace has clearly done a better job in the past than a lot of government regulations that have been imposed from time to time.

We are not, however, relying completely on the free marketplace.

Although that is the major factor, we recognize the importance of the emergency planning function that will be under the Deputy Secretary for Energy Research. We will have an Assistant Secretary for Energy Emergency Planning, which is on the table of organization, as well as an Assistant Secretary for Strategic Planning, which is concerned with all kinds of other planning, except energy, and they will work together.

Essentially, with the economic backup we have already existing in the Commerce Department, plus what would be transferred from the Energy Department, we would be able to not just track the supply side of any emerging energy problem, but also the demand side.

In Commerce now, we do some hundreds of sectorial studies, and we are expanding them that so that they are just not domestic but worldwide. This will enable us to better understand their implications for the future of trade, commerce, and business.

Through this organization, through standard input/output techniques, through the computer facilities we have, and through the contacts we have with all of these sectoral areas and businesses, we should be better able to predict what is going to happen.

We should be able, also, to integrate SPR as, may I say, a last resort in any emergency planning we do in the energy field.

I say as a last resort for the obvious reason that we do not want to use that for these purposes unless we have to, but it is there as a technique to be used as necessary.

We, under the Assistant Secretary for Energy Emergency Planning, as well as the Assistant Secretary for Strategic Planning, would have several types of broad plans for different kinds of emergencies.

I do not think it is wise to come out with an exact amount, even with a specific plan for energy emergencies, because with all of the backup capability we have, it is impossible for the government or any other agency to predict exactly in what form a particular emergency could arise with all of the various potentials that there are for that.

It is correct, we feel, to have some very broad-gaged planning on the way we would go.

I might add, also, that if we came up with a specific plan, or two, or three, it might have exactly the reverse effect if it were published and became known, because it would, in effect, take the pressure off those who would be under some kind of allocation.

We feel that the best possible protection is to have the marketplace decide at the inventory levels, through the whole structure from producer to consumer, and not step in and say right now, "Well, we will take care of this particular problem for you so you won't have to."

Chairman ROTH. Many people are concerned about long term energy supply and that we face the possibility of serious energy shortages in the future.

Would you agree that the Government should try to put into effect policies that will create an environment that will insure in the long term that we have whatever energy is necessary for future growth?

Mr. BALDRIGE. Yes, I do.

Chairman ROTH. There has been considerable concern expressed about this reorganization, that it means an upgrading or a concentration on traditional kinds of energy, of oil and gas, in particular, and an emphasis on nuclear, while at the same time downgrading some of the new, and exotic forms of energy, those that are called renewables, for example.

Do you think it is important that, in the event that this reorganization is accepted, we should concentrate on the development of new sources of energy; that we should continue to place a primary emphasis on these sources, as well as conservation?

Mr. **Baldrige**. It depends, of course, on how we define emphasis or primary emphasis. The function of the Government, we feel, is to provide funds where necessary for the kind of research involving high-risk, high-technology, long-term payback that the private sector could not be expected to fund alone.

Where the technology is developed, we do not believe that the Government should step in and subsidize any particular form of relatively proven technology. That is, in essence, counterproductive.

I know it is a very attractive idea to say—just let me use the example of solar energy—that if the Government subsidized various kinds of solar manufacturers, that somehow would take a load off of our other energy requirements.

I have been involved as a director of a company in some solar manufacturing. I have been involved in building plants that have used solar where we could, and it is quite clear that, for example, in the case of hot water heating, solar energy is already here.

It is practical in the area of space heating. Depending on how one figures it, it is anywhere from a 30- to a 70-year basic, a 70-year basic, depending on the area of the country and so forth.

Those techniques for solar energy, for example, are relatively well-known now. There are people in the business, and where it is practical to use them, they will be used.

We feel that any subsidizing by the Government should, therefore, be kept in the areas of the high-risk, long-term payout kinds of things, not for subsidizing individual companies to go ahead.

The marketplace can take care of that far, far better than the Government ever possibly could.

Chairman **Roth**. My time is up.

I would like to go, as we said at the beginning, in the order that the Senators appeared. That would mean Senator Stevens would be next.

Senator Stevens?

Senator **Stevens**. I appreciate that, Mr. Chairman. I have to go back to my hearing.

Let me state at the outset, which I didn't mention before, that I would like to be provincial. My State is going to produce 40 percent of the oil, at least 35 percent of the gas, and we have half of the coal in the United States. In 1977, when we created this Department of Energy, I called it the pentagon of the energy world. I would hate to have to fight a war with the Pentagon having the control over the military that it has now.

Since 1977, this "Pentagon" has not opened one new mine in Alaska. There has not been one new discovery of oil that the Department of Energy had anything to do with.

They have held up the building of the gas pipeline, and we saw them spend $10 billion in 1 year to create problems for the industry.

Secretary Edwards, I am not critical of you. I think you are doing your best to try and get this back down to where it is a manageable policy formulation concept at the Federal level, and I welcome the transfer of this function to the Department of Commerce because my experience with Commerce in the 14 years I have been here is they try to help solve business problems, not try to create problems for business to solve.

Along those lines, I just have three questions, Secretary Baldrige.

What specific benefits can we expect from combining the international trade functions of DOE with those currently in Commerce?

You mentioned that briefly, and so did Mr. Wright, but what are the specific benefits that are going to come to the industry that is involved in energy from that combination?

Mr. BALDRIGE. We have, as I mentioned, some 62 foreign commercial service officers abroad who are working on exports for the United States to those countries fulltime.

If you just took the example I mentioned, we are not going to have a nuclear reactor manufacturing capability unless they are able to sell abroad.

There are no orders for the next 5 years in the United States. The International Trade Administration will provide specific and positive help, particularly with the new coordination that will evolve from this merger.

No. 2, the second example: Probably the biggest export potential that this country has in the next decade that would help our balance of payments is in the area of coal.

We need a national coal policy and this administration has put one in place. Carrying that out is of the highest importance.

We sent high level trade missions to Europe just recently to sell coal. We want to be long-term suppliers of coal around the world and have steady, long-term contracts, both in Japan and in Europe.

We don't want to be a swing supplier as we have been for coal in the past as a result of which long-term contracts were given to other countries. The United States was looked on as a somewhat unrealiable swing supplier that was there to be used occasionally.

We need that stability for our exports and for long-term jobs in coal. The International Trade Administration can help greatly, not just in coordinating the policy, but in actually helping to sell the coal, because that is not simply a matter involving the private sector alone.

Although that enters into it, most foreign countries have the governments that are involved heavily in any decision on future energy sales, and we have to make that effort as far as coal is concerned.

On international economic policy, our export effort and our other energy plans should be coordinated.

I think those would be some of the main examples that I have pointed to. There are probably many others we haven't even had a chance to get into yet, but I can guarantee you that these new DOC organizations will be working closely with the International Trade Administration, because it is in their own best interests.

Senator STEVENS. Thank you. We will welcome that.

I think every country in the Pacific rim has tried to develop exports of coal from Alaska. Every attempt has been frustrated because of Federal policy. I hope that we can bring that into our export policy and to real prominence as far as our energy policy is concerned.

Could you answer two other questions?

One regards the DOE field structures. Particularly, we are talking about the labs and the operations offices. I don't really identify that in this proposed reorganization plan for Commerce.

What is going to happen to the field operations, particularly labs, and the operations offices?

Mr. **Baldrige.** Secretary Wright has been studying that in particular detail. If I may, I would like to have him answer that question.

Senator **Stevens.** We have those. In my way, I am going to be provincial. I want to know what you are going to do with them.

Mr. **Wright.** That is fine.

At the present time, the National Labs, Senator Stevens, are divided between the weapons production research as well as the nuclear and energy research. Most of them have a mixed responsibility between those two areas with the exception of a few like Los Alamos, Sandia, and Livermore, are generally thought of as weapons-related complexes. Those will go under the specific direction of the Deputy Secretary of Defense, Weapons. The Oak Ridge Lab, in contrast, has a very small amount of military work. It performs the range of civilian work. We would see dividing them as a primary responsibility between the two organizations, energy and defense weapons, pretty much needing the same type of organization and alignment they have today, and further having the same types of relationships with each other that they have today, because I think that the benefit is of being within the same overall organization.

Senator **Stevens.** What are you going to do with the operations offices?

Mr. **Wright.** The operations offices, those are also mixed, and they will probably report directly into the Deputy Secretaries for administrative responsibilities. I have a list of them and who they primarily service, but they have pretty much cut across the board.

In the future, I think there is going to be some benefit from perhaps combining those operations offices with the Commerce administrative offices, which is the third category of what I mentioned earlier. Because with the model out there, while I don't know enough about it to say it is perfect, it appears to be working. I think we ought to take advantage of it.

Senator **Stevens.** Thank you.

Mr. Baldrige, I have one last question. What are you going to do with solar? What is the future of the solar program after reorganization?

Mr. **Baldrige.** As you know, there have been some cuts there. I said before that we want to put emphasis on long-range, very technical kinds of research, and solar is an area that I think we would have to study very hard in that respect.

I haven't been intimately involved with the Department of Energy before, as you know. If this transfer went through, I would certainly have my own ideas a year from now about those particular programs.

Senator **Stevens.** Thank you very much.

Thank you, Mr. Chairman.

Let me make one parting shot; that is, in 1977, those of us who opposed the reorganization—and I was one who voted against it—did not block the President's reorganization. We recognized the right of the President to reorganize the executive branch as he wanted. I hope, and I challenge my colleagues on the other side of the aisle this time to grant this President the same right. As the assistant minority leader, I could have held that bill up in 1977, and I don't think there is anyone who would question that. We let it go through, and we let it go through because of a policy of company with the President. I think this one should go through, too.

Thank you very much.

Chairman ROTH. I would just say on that particular point that both with respect to the Department of Energy and the Department of Education, even though I had some reservations about some aspects, I worked very actively with that administration to help them accomplish their goals. I am confident that we will have the same kind of a bipartisan approach today.

We have two Senators here who did not have a chance to make any preliminary statements. Because of the lateness of the hour, I would ask them to keep them as brief as possible, but I feel they may want to make an opening statement.

Senator Percy?

OPENING STATEMENT OF SENATOR PERCY

Senator PERCY. Thank you, Mr. Chairman, very much indeed.

I will make my comments brief, because I think my views are known to both Secretary Edwards and Secretary Baldrige, and to Joe Wright.

I have had no problem at all moving in line with Commerce. I would like to see Commerce beefed up. My main concern is the shift that I see in the organizational structure.

Now, organization means budget many times. It is the manpower you put behind the dollars. I was very troubled at first when the administration proposed very deep cuts in crucial energy R&D programs. We had hearings on these R&D programs at Argonne National Laboratory. We are grateful for their testimony. Both Secretaries assisted out there. Cutting of research is going to cut the future of our energy program. It will eliminate the breakthroughs that we need for a strong economy. No company can do this, in our experience, by cutting R&D, research, and the new ideas which lead to breakthroughs. I am happy that it appears that the administration now has seen fit to restore some support to these efforts. I hope it does mean that Argonne National Laboratory and other great laboratories will exist for the future and help to build the future for us.

The organization chart does concern me somewhat, because it drifts away, it seems, from a balanced energy program, and that is where I think we should be. I think that is where my constituents feel we should be. Even though we are very heavily reliant in Illinois on nuclear and have gone that way for a long time, we are conversant with the fact that there really has not been a nuclear plant constructed for many years. It has been put on ice; there have been delays. Now we want to see a balanced program develop which does not just emphasize nuclear but includes coal, renewables, and certainly conservation.

Under the organizational structure, as I see it, conservation is not being given the kind of emphasis that I think it should. Nor is solar, as Senator Stevens has expressed a concern. Many of us feel, and I know I speak for Senator Cohen, very strongly the need for a balanced program. We feel solar, coal, oil, gas, plus nuclear are important, and I would like to see this reflected in the organizational structure. During my first question, I will spell this point out further for you by using these charts.

I would hope that we would not put too many eggs in one basket; that we would develop for the future a really balanced program of energy resources. I do think at a minimum we must have one Assistant Secretary for Conservation and Renewable Resources and one Assistant Secretary for Fossil Fuels.

When I get into my questioning period, Mr. Chairman, I would like to elaborate on that. Likewise, I do think we need to counterbalance the recent emphasis on promoting the development and export of nuclear technologies and compensate for the proposed elimination of the Assistant Secretary for International Affairs by adding nuclear nonproliferation to the title and function of the proposed Assistant Secretary for Security Affairs. Right in this room, around this table, we developed a Nuclear Nonproliferation Act. We are trying to enforce it. We must emphasize nonproliferation continually.

Just as around this table we created, 5 years ago, the Department of Energy, and did it almost on a unanimous basis at that time, now we are being asked to dismantle it and shift it. We have open minds on that. I want to work as other Senators want to work with you. But speaking for Senator Cohen and myself, in order to do that, we have to see a balanced program, structurally and organizationally, just as I hope we are coming to a balanced budget.

Thank you, Mr. Chairman.

[Senator Percy's prepared statement follows:]

PREPARED STATEMENT OF SENATOR CHARLES H. PERCY

Just 5 years ago we were hearing testimony supporting the creation of a new Department of Energy. Today we will hear testimony supporting the elimination of the Department and the transfer of most of its functions to the Department of Commerce. I come here today with a willingness to hear the administration make its case. However, I would like to make clear that I do have some very serious concerns with the bill as it is currently written.

I have been deeply troubled in the past when the administration has proposed deep cuts in crucial energy R&D programs—and, in my mind, I cannot separate budget from reorganization issues. But I have been very encouraged recently by indications that the administration may now support the Congressional levels sited in the budget resolution for energy R&D—and support roughly current level funding for conservation, renewable resources, and fossil fuels. I trust this would mean that the Argonne National Laboratory and the other National Labs around the country will not suffer any further crippling cuts.

This reorganization plan as drafted—like the budget as originally submitted—drifts too far away from the kind of balanced energy policy that people in Illinois and elsewhere in America want to see. To approve the bill as currently drafted would be to endorse an energy policy which has an excessive tilt toward the development of nuclear energy at the expense of other resurces such as coal, renewables, and conservation. Under the proposed organization, there would be four Assistant Secretaries with primarily nuclear-related functions. Yet there would only be one Assistant Secretary for all other resources, including conservation. In essence, almost all nuclear functions have been enhanced from their current organizational status, while conservation, solar, coal, oil and gas have been reduced in status.

The policy reflected in the administration's proposed energy organization is based on a view of the world which divides resources into two categories—nuclear and non-nuclear. This is not how I would define it; nor is it how I believe my constituents in Illinois would define it. Instead, we see the world in terms of many different resources including coal, solar, alcohol fuels, oil, gas, conservation, and nuclear—which is certainly included in this list, but is not selected out for priority treatment. We cannot afford to put all our eggs in one basket, whether it be nuclear energy or anything else.

At minimum, I feel that we should have one Assistant Secretary for Conservation and Renewable Resources, and one Assistant Secretary for Fossil Fuels, to give these functions the priority they deserve. Likewise, we need to counterbalance the recent emphasis on promoting the development and export of nuclear technologies—and compensate for the proposed elimination of an Assistant Secretary for International Affairs—by adding nuclear nonproliferation to the title and function of the proposed Assistant Secretary for Security Affairs.

Today's hearing will make it clear whether the administration is sufficiently open-minded about these concerns to make it worthwhile for myself and my colleagues on this Committee to spend the time and effort necessary to make this a workable reorganization proposal.

Chairman ROTH. Thank you, Senator Percy.

Senator Schmitt, would you like to make an opening statement?

OPENING STATEMENT OF SENATOR SCHMITT

Senator SCHMITT. I am, first of all, happy to be with you during consideration of this item, as it is of very grave concern to me. I voted against the creation of the Department of Energy, but not for the reasons that Senator Stevens did. I did it because I didn't think it would work. I think I indicated I didn't think it would work because you were putting development and management functions together, and management functions are very saturated, the upper levels of management of R&D have suffered in many areas, including those referred to by Senator Percy. The second reason was that I felt we, the Congress, created an impossible management structure for any Secretary of that Department.

Even if the R&D regulatory problems did not exist, I could not see how, under that structure, a Secretary could run the Department, and I have similar concerns, I must say, with the walls that have been created between various Assistant Secretaries and Under Secretaries and the Secretary himself. I will get into that in the question and answer period.

Thank you.

Chairman ROTH. Thank you.

[Senator Schmitt's prepared statement follows:]

PREPARED STATEMENT OF SENATOR HARRISON SCHMITT

Mr. Chairman, I would like to join you in welcoming such distinguished witnesses to our hearing this morning. The restructuring of the Department of Energy [DOE] is an issue which greatly concerns me and I look forward to hearing the witnesses' views on how the proposed reorganization embodied in S. 2562 will work. Making a final determination on where the programs currently in DOE should be placed is no easy task, as many entrenched interests are at stake. However, I believe that we can accommodate these special interests without sacrificing the best interests of our nation.

In order to "Form a more perfect" DOE, an understanding of the past, particularly the past mistakes is crucial.

In 1976, the bill to establish the Department of Energy rapidly passed through Congress and became law over the objections and warnings of those of us with broad technical and administrative experience in energy. We have been proven right.

The new Department brought together a large number of diverse functions and staffs, some with long histories and well-established functions, others relatively recent and operating in a mode of response to emergencies of the day. The very breadth of the tasks requested of DOE and the specific nature of several funcitons, like "Energy Supply Management", "Resource Allocation" and "Research and Development", made failure impossible to avoid even if a top-heavy management structure had not been in place.

In addition, the Department largely failed to develop individual policies to guide planning in its specific functional areas. Poor communications among the different components of DOE exacerbated the problem. Finally, DOE became a collection of an assortment of "social engineering" oriented functions. And this, in large part, is the key to most objections to DOE as currently organized. During the past five years, DOE spent $50 billion but we still do not have a sustainable national energy policy. Instead, DOE has deterred energy development by:

Interfering with oil production allocations and development through regulations, taxation, and new legislation; deferring gas pricing deregulation and complicating interstate and intrastate transmission and distribution; mismanaging coal conversation; halting nuclear plant development by delaying reprocessing, waste disposal development, and licensing; and subordinating research and development to regulatory functions. The U.S. experience has shown that regulatory functions cannot be combined with research and development functions, because invariably, regulatory functions take the bulk of the bureaucrat's attention.

I firmly believe that the mistakes of the past can be avoided by transferring the valuable functions of the Department of Energy to the Department of Commerce as proposed by S. 2562. In addition, the bill seems to reflect the appropriate role for the Federal Government in energy—which is to conduct high-risk, long-term research and development of domestic energy supplies when costs and risks preclude private enterprise involvement.

However, I am concerned that the proposed management structure of the Department of Commerce may not be flexible enough and could impede future research and development, particularly in areas that have overlapping functions, like strategic planning. I hope the witnesses will be able to address my concerns about the future structure of the Department of Commerce, as well as any others that may arise during the course of the hearing.

Thank you, Mr. Chairman.

Chairman ROTH. We will go back to the questioning.

Senator Mattingly?

Senator MATTINGLY. I will just be very brief. My statement was not as long as everybody else's. When I began, all I said was, "Show me." I am back to that. I want to be shown—in regard to the Federal Energy Reorganization Act—that you have accomplished three things:

One, that if we do have an energy plan in the United States; what it is. We are talking about the coal policy, but in conjunction with that, we need to be talking about court policies, and we briefly talked about solar energy. I knew my colleague here, Senator Schmitt, and myself, are concerned about possibly having a NASA type agency for solar, but first of all, there must be an energy plan. That's No. 1 of my concern.

Second is the problem of proper management of the energy area and established plans that won't decline by a change of administration in our country. I think there has to be some assurance and some built-in measures there to make sure that we will continue to have the management quality of yourself, Secretary Baldrige.

My third concern, and possibly the most important to me, is that should we do this, that there be significant savings in money and in people by this reorganization.

I am not convinced yet of these three items, but I think that you all will convince me as time goes on if you can work on those three points.

Instead of asking you questions, I will just ask you to answer those questions as time goes on in reviewing this bill.

Thank you, Mr. Chairman.

Chairman ROTH. Thank you.

Senator MATTINGLY. If you cannot respond to it——

Senator SCHMITT. What was the question?

Mr. BALDRIGE. I would be glad to answer him right now, sir.

Chairman ROTH. Do you care to make any comment on Senator Mattingly's comment?

Mr. BALDRIGE. Yes.

I want to make sure I have got it correct, Senator. Your first question was what?

Senator MATTINGLY. It is about the energy plan for our country.

Mr. BALDRIGE. The energy plan for the future?

Senator MATTINGLY. Yes.

Mr. BALDRIGE. We have an implementation plan for SPR which became effective in 1979. SPR is part of an overall plan which details alternative methods for drawing down and distributing SPR oil through price competition or at a decontrolled price, either within or outside of regulatory programs. We figure that gives us flexibility to be able to work on the plan.

As far as my having a plan on top of that to give you today, I don't. But I will have an Assistant Secretary who is in charge of that in this new table of organization, the Assistant Secretary for Emergency Planning.

I would expect him to fill his 8 hours plus every day, or else I will get somebody else. I cannot give you a plan today, and I don't think it would be wise to get into the kind of detailed planning that prior administrations have cherished, because they do not work that way. I mean life doesn't work that way. I don't know if that fully answered your question, but——

Mr. Edwards. Might I just sort of take a shot at this?

Senator, our policy is very clear cut, two things: It is simple. Things that are simple around Washington sometimes are misconstrued. It is to produce as much as we can and conserve as much as we can. Conservation is driven by the price, and we have conserved almost as much oil in the past 3 years as we have found in new reserves.

On the production side, the things that we have done have increased our domestic production. As far as the energy plan is to implement the policies that we have, we have one published. It is the National Energy Policy Plan. We published it in the summer of 1981. By law we have to update that plan every 2 years. We would be glad to submit one to you or to the committee for the record. Having been associated with the Department of Energy I think I am a little more qualified to answer that question than the Department of Commerce.

A few months from now, he will be very well qualified to answer.

Mr. BALDRIGE. Your second question was on management, Senator?

Senator MATTINGLY. Right, yes.

In respect to your position, since you are going to be taking over those functions, I just want to make sure that when you finally leave, eventually, in another 6 years, that this person that follows you has the same qualities to look at, and I mean that sincerely.

Mr. **Baldrige**. I think the answer is clear: If these departments are merged and the responsibilities are brought together, the Cabinet officer in charge, whoever he is, is going to have to be picked by whoever the future President is, with an idea of the importance of the Department; the ability to manage, and so forth. It is simply too important; it will be too important to give as a political payoff by any President who has any brains at all. It is going to involve the lifeblood of this country in terms of jobs and in terms of the whole range of commerce and trade, as well as energy.

I cannot see, in the future, that the Department will be denigrated.

Senator **Mattingly**. And the third point, would you get to at some other time as to the estimated savings in money and people? Fewer people, less money.

Mr. **Baldrige**. Yes. Secretary Wright addressed that, and I will just take a couple of sentences. We think we can identify about $240 million in the 4-year period. It may not sound like a lot in Washington, but it sounds like a lot to me. There is another $750 million in the computerization, the organization of management, that I feel very certain will give us savings. But I would rather under-promise and over-deliver, and I would rather leave it that way, but there are savings to be made, I am positive of that.

Senator **Mattingly**. Can you give me a ball park figure? Can you get up to billions? How about the people savings?

Mr. **Baldrige**. If you take the fact that there will be 9 fewer people involved in level 5 jobs and above, that means 9 fewer mini-departments of varying sizes. The total numbers we have identified so far—you had that figure, didn't you, Joe?

Mr. **Wright**. Yes, sir. The first group of savings that would amount would be $240 million in 3 years. That is approximately 1,000 to 1,200 people.

Senator **Mattingly**. How many employees do they have now, 20,000?

Mr. **Baldrige**. They have got about 7,000.

Mr. **Edwards**. Right now we have about 18,000 people in direct employment and something over 100,000 under contract. But only 7,000 of these, plus the contract employees will go to Commerce.

There are a great number of personnel, about 5,000, who will be shifted over to Interior, when the Power Marketing Administrations are moved over there.

Mr. **Baldrige**. Senator, we began this administration with about 40,000 people in the Department of Commerce. By the end of this year, we will be down to 33,000. If transfer took place, we will pick up approximately 7,000, which will bring us back up to 40,000, but of course, with new responsibilities involved.

Mr. **Edwards**. To set the record straight, on May 29, 1982, we had 16,848 people. January 10, 1981, when we came onboard, we had 19,927 people.

Senator **Mattingly**. You have done a good job since you got here.

Mr. **Edwards**. Thank you, sir.

Chairman **Roth**. Senator Percy?

Senator Percy. Thank you.

I would like to refer to the process that we use up here. When the House and the Senate get together a conference, we never reach agreement until we give and take. I hope in this process we can report out something we can all work toward, but the purpose is not to just set in cement what has been brought up. The purpose is to, hopefully, constructively criticize, and I offer this in this spirit.

I see in the organization chart over there an excessive bent toward the development of nuclear energy. It is reflected in the chart very clearly. On the one side, on the left, you have the existing Department of Energy. The blue boxes denote nuclear defense related functions; the green denotes nuclear related functions; yellow depicts conservation and renewable resources; and orange depicts fossil fuels. They are balanced out somewhat.

Here is the new organization. The blue, or nuclear defense, predominates. It is moved up from the bottom of the chart to the top. Then you have green, still heavy, for nuclear nondefense. You then have orange and you have yellow depicting all the other fuels. They are bunched together in one little box. Organizationally and structurally, it seems to me, it emphasizes the nuclear programs. My concern is the nuclear drift of this organizational chart is reflected in the budget, in personnel levels at DOE, in policy priorities, and actually, Secretary Edwards, with all due respect, in the statements you have made. You know what a strong supporter I have been of nuclear energy in my own State, but I also am trying to look to the future.

In looking to the future, I have to look to the fact that there have been no new orders for nuclear plants since December 1978, and over 40 plants that were once planned have been canceled since the beginning of 1979.

Are we going to build a whole new Department based on that structure, that emphasis, in the light of these facts? In addition, I point now to your larger chart. It seems as though the chart upgrades the current Deputy Assistant Secretary for Nuclear Materials to an Assistant Secretary. It upgrades the Deputy Assistant Secretary for Security Affairs to a full Assistant Secretary.

It upgrades the Office of Energy Research, an office with largely nuclear responsibilities, to an Assistant Secretary, while keeping yet another Assistant Secretary for Nuclear Energy. It seems very top-heavy structurally and organizationally on the nuclear side.

The new chart actually downgrades the current Assistant Secretary for Conservation and Renewable Resources. It downgrades the Assistant Secretary for Fossil Fuels by combining them in one catch-all, Assistant Secretary for Energy Technology, Conservation, and Alternate Sources. Just take conservation. There are 170 Members of Congress that are members of the Alliance to Save Energy. Here is a business group, a powerful business group, one of the most powerful boards in this country. The Advertising Council of the Alliance alone has contributed $85 million of free donated television and radio time. The oil industry has contributed over $1 million to just emphasize the need for more fuel efficiency. Are we going to downgrade conservation, when the private sector is upgrading their emphasis? Are we going to downgrade it in in the

Department of Commerce and Energy? That is my question to you both.

How do we justify this structure and this downgrading of what I consider to be the future; and the upgrading of something that seems to be limited because of economic reasons, environmental problems and many other factors which we know, are very grave indeed.

Mr. **Baldrige**. Senator, could you leave those charts up there for just a minute?

Senator **Percy**. I ask that question for Senator Cohen, also, who feels, as a member of this committee, just as strongly as I do about the lack of balance there seems to be in this new structure.

Mr. **Baldrige**. Senator, you have worked in business, as I have. You understand what table of organization charts are, better than I do. The numbers, in different colors there, I don't think tell the proper story.

What we have done is separate out, in one area, defense responsibilities so we can fix the responsibility and accountability for all defense weapons production. So when you look at the chart at the right and see the blue lines at the left, those are all proper components of our defense effort in energy.

Most of those are mandated productional and operational functions that we do because the Government views them as solely Government responsibilities. Nuclear power is really unlike any other sector of the nuclear industry because over 75 percent of our fiscal 1983 budget request is directed toward uranium enrichment and commercial and defense management, remedial action programs, naval reactors and other activities are solely Government responsibilities, unless we want to walk away from them. We put them on one side. Whether they are colored blue or orange, I think it makes sense to have them together under one deputy secretary so that the accountability and the responsibility are fixed. To me, that is an easier part of your question to answer than the second part, which is a more difficult one.

We may have a difference of opinion on what action the Government should take as a result of what the private sector has already done. I think one could make a case that because of the magnificent effort done by industry in this country in conservation and because of the efforts of the private sector in conservation, it is appropriate—to put less emphasis and fewer Government dollars in the same area. This is not "downgrading." We are seeing a tremendous conservation effort in the country. At first, when people did not realize the need for this, when they didn't realize the dominance of the oncoming oil shortage program, there was a great need for that kind of education.

We feel that you cannot find a man or a woman in the street now that does not understand that, that isn't worried about their energy bills and doing everything they possibly can. Certainly, there is still a Government function left there, but I would not like to call it downgrading.

Senator **Percy**. Secretary Edwards, the congressional budget resolution for fiscal year 1983, Senate Concurrent Resolution 92, just passed the Congress and calls for $600 million more for energy than the President's original budget request for $4.2 billion. I am encouraged this money will go out toward restoring moneys for energy renewable resources, conservation and fossil fuels and I am encouraged that the administration will support roughly current level funding for conservation, renewable, fossil fuel and R&D. This would mean our laboratories would not be crippled and could go forward. Could we have an assurance at this time that you could support this level of funding?

Mr. **Edwards**. Senator, I don't want to get crossed up with answering your question and giving you absolute assurances of these things. We are trying to work out the differences between the amount Congress approved and what we have originally requested, but it is obvious that you have included a lot more money than we requested for certain aspects of your program.

I will say this in a general way: This administration, as you do, believes very strongly in long-term, high-risk, high technology research and development. I can promise you we agree on that. I think, as you do, that the future of this country lies in maintaining this high technology leadership, or at least reclaiming some of it that we have lost to other nations. Certainly we are going to do everything we can to strengthen those programs. Then the framework and the budgetary strengths that are necessary is another economic situation.

Senator **Percy**. I will follow it up later in a letter. I hope we can nail this down a little bit.

Thank you, Mr. Chairman.

Chairman **Roth**. Thank you.

Senator **Percy**. Are we going to have any other opportunity to ask additional questions?

Chairman **Roth**. Yes. We will have another round.

Senator Schmitt?

Senator **Schmitt**. Thank you, Mr. Chairman.

As I indicated in my brief statement, I am concerned, Secretary Baldrige, about the division of responsibilities between the three Deputy Secretaries. More generally, I am concerned about restrictions that seem to exist in this legislation on your flexibility as manager. How do you expect turf battles between the three Deputy Secretaries to be resolved?

Mr. **Baldrige**. It would be settled my way, Senator.

Senator **Schmitt**. You don't feel that you are unduly restricted by this legislation?

Mr. **Baldrige**. No. Naturally, the fewer restrictions the better. I can work with this organization the way it is. It is clearcut, and the responsibility and the accountability are fixed. That is what I am used to working with. I think we ought to see more of that in the Government. It is not spread out all over the Department. With one or two exceptions, they are easily controlled. It is pretty well fixed.

The need for cooperation between the two, the turf questions that inevitably come up, I don't think are any more difficult than they are in the rest of the Government. That is just part of life.

Senator **Schmitt**. They have been particularly difficult in the Department of Energy, in my estimation, looking from the outside.

Mr. **Baldrige**. I might agree. I don't know if Secretary Edwards would, but I think this goes a long way toward solving that, because now we have two very clearcut organizations with a boss at the top of each one. I think that leaves the Secretary of Commerce's role as, say, settling any possible conflicts between two Deputy Secretaries. That is something I am used to doing, and it goes on all the time.

Senator SCHMITT. But, Mr. Secretary, isn't section 613 contradictory to that intent? "The authority of the Secretary of Commerce to establish, alter, or consolidate or discontinue organizational units or components in the Department when he considers that action necessary or appropriate does not extend to the abolition of organizations established by title III of this act." That is a pretty big restriction on your ability to manage.

Mr. BALDRIGE. Yes. I would have to agree on that. More flexibility is always more preferable. This particular setup is as a result of many consultations with many Senators in order to gain the proper support, and it is something I can live with. I would rather have more flexibility, yes.

Senator SCHMITT. I am new on this committee. I am not trying to be presumptuous, but I think whether there have been consultations or not, I think this committee has a responsibility to insure that the Department of Commerce has an organizational setup that we can recommend to the Senate and to the Congress as one that will work. If there is one thing we have learned from the Department of Energy experience, it is that the organizational structure is critical to the ability of an agency to function.

We will get into this in more detail, I am sure.

Mr. BALDRIGE. I would not fight any increase in flexibility, Senator.

Senator SCHMITT. The question of the national labs has been raised. Presently, the field organizations that DOE provides the national labs to report through, in particular Assistant Secretaries through the Under Secretary—the Assistant Secretary of the defense program is responsible for the so-called weapons labs: Livermore, Sandia, Los Alamos—encourage weapons labs to apply their energy to other areas. Weapons and energy research have a long history of closer interaction. I am concerned that the wall that is being built between defense and energy programs and between the Department and the energy defense programs will hinder the interchange that proved so successful in the past. How do we insure that the national labs will not be approved by one Deputy Secretary or another and be able to affect this interchange?

Mr. BALDRIGE. Let me begin by saying that I have never seen an organizational chart in 30 years that could solve all the problems perfectly. You always end up with the best possible one, but there are always some problems exactly as you mentioned, and that is a situation that we are going to have to resolve successfully.

There are several options. I won't go into them now, but I think that essentially the fundamental approach that we take is that the structure that is there now is working. We like it. It is successful. It does allow that interplay between Defense and Energy research and in the nonnuclear areas. We do not want to disturb that. There are several methods to keep that, but we do like the present plan, and we do not want to, in any way, get in the way of the kind of interchange that is necessary in those labs to have them be successful.

Senator SCHMITT. The legislation is accompanied by a resolution that provides a 90-day review period for the Deputy and the Deputy Secretary of Commerce. This appears to be excessive. Wouldn't a 20-day period provide a sufficient amount of time to review any nomination?

Secretary BALDRIGE. I would like to ask Secretary Wright to comment on that.

Senator SCHMITT. Yes. That might be appropriate.

Mr. WRIGHT. Senator, yes, I think it probably would, because this was one of the things that was requested by the chairmen of the committees when they were getting into the confirmation restriction. That was not our area to intrude in. Therefore, that was put in by the chairman of the committee.

Senator SCHMITT. We will look at that further.

Secretary Baldrige, your Department has been most supportive of my efforts and the efforts of many in the Congress to develop a uniform patent policy for the Federal Government. On the other hand, there have been some efforts, not the Secretary of the Department of Energy, but others, which have seemingly torpedoed our efforts for uniform patent policy. Can we anticipate that your attitude, having reached out and encompassed the Department of Energy, will continue to be supportive of uniform patent policy?

Mr. BALDRIGE. Yes. You can expect that. I am not aware of the problems in the Energy Department, so I really cannot comment on them specifically, but I haven't changed my mind on the patent laws.

Senator SCHMITT. The Energy Department within the administration expressed reservations about including the National Laboratories under a uniform patent policy. A decision was made within the administration to support the inclusion of the labs, and we see a distinct sign that members, people within the Department of Energy, again, not the Secretary, who are disappointed in that decision, and are trying to stir the pot over here and get that bill held up and killed. I don't appreciate it. The sponsors of that bill don't appreciate it, and I just want to be sure that if and when it is your responsibility to exercise control over this part of your agency, that you can exercise that control and prevent that kind of interference.

Mr. BALDRIGE. Yes, sir, I do.

Senator SCHMITT. Finally, Mr. Secretary, do you intend to reevaluate the basic philosophy of the strategic petroleum reserve concept?

Mr. BALDRIGE. I would reevaluate the whole organization when I got it and the policies behind it. I think that is part of my job: To recommend changes or keep things as they are. I feel that one would be remiss in his job and his responsibilities if he didn't do that. I have no bone at present to pick with that policy, but if I did, I would.

Senator SCHMITT. At some other point we may have an opportunity to discuss that. I think the strategic stockpile of critical minerals is one thing, but trying to stockpile something used in quantity and at the rate at which we use strategic petroleum as well as the expense to the National Treasury has always cast some doubt in my mind. Funds could be better expended on developing a new reserve, rather than trying to store a limited supply of existing oil. But we will get to that later, and I will wait for the next round of questions.

Senator **Pryor** [presiding]. Secretary Baldrige, I should say I have never been around so many distinguished Secretaries in one room. Secretary Baldrige, you have a 12-page statement, and then you made additional comments. The full statement, of course, is going to be in the record, but I thought it ironic, and I think it says something that I am trying to ascertain—I am trying to probe now the inner departments of your mind—on this question: Why is it that the largest, most emotional, most controversial program in this country that you will be administering, that is, the manufacture of nuclear warheads, was only mentioned in one sentence of your statement, and that sentence was merely in passing?

You are going to run this program.

Mr. **Baldrige**. I think probably that I imagined the focus of this hearing would be in the other areas—I had spent hours in conversations with the Senators most interested in the defense component of this in the private conversations, and with Secretary Edwards, discussing the more complicated areas.

I also felt that Secretary Weinberger, who was here to testify, would cover that area so that I would concentrate on the other ones. Those two facts explain the innermost workings of my mind on that subject. I would be glad to discuss my theories on that.

Senator **Pryor**. You mentioned Secretary Weinberger's remarks. It is projected there will be a 23-percent increase in spending for the development of nuclear warheads from 1980 until 1987. Will you take your directions on the number of warheads that we might need from Secretary Weinberger, or will you become your own person in this field? I would like to know basically how you feel about this very rapid escalation of nuclear warhead development that seems to have become the present policy of the United States.

Mr. **Baldrige**. The first part of your question I would answer this way. There is no question that Secretary Weinberger and I are going to have to work closely together on this. I don't think it is a question of one's policy or the other's.

I do think that defense policy has clear priority and primacy in this area, and the ability, and that is decided by the administration. Once that is decided, our job is to carry out that policy. This gets into such questions as production rate, backlog requirements, and so forth. Those are the areas that we have to work together on, but I do not see it as a change in direction coming from the Commerce Department to the administration on what the essential defense policy should be. That is not our job.

Mr. **Edwards**. Could I interrupt there? As you know, under the Atomic Energy Act of 1954, there are certain requirements to develop the stockpile memorandum between the Department of Energy and the Department of Defense. The Department of Defense then takes it to the Joint Chiefs of Staff. It is a 10 year planning projection. In 6 years of specific weapons, it is a long and involved decisionmaking process. It is required every year, so by the Secretary of Commerce not being involved in this, he certainly doesn't necessarily know of all the complicated details of how we arrive at the weapons stockpile memorandum.

For the record, I wanted to clarify that.

Senator **Pryor**. Mr. Secretary Baldrige, our friend here, Mr. Secretary Edwards, is probably smarter than all of us put together. He is getting ready to quit. He is going to be, in a few months, basking in the sun at Hilton Head. We are going to be left to run this Government, as crazy as the whole system seems to be right now, We are going to be left with all the problems. I appreciate the call of the Chair and the admonition of our colleagues on the other side of the aisle to be bipartisan, but you know, I am kind of a doubting Thomas on the issue of this transfer of all of these functions to the Department of Commerce.

In an article, a tribute to Secretary Edwards, Secretary Edwards was quoted in New Orleans as saying, "I want to be the first Cabinet member in the history of the United States to close down a department. I want to close down the DOE, bury it once and for all and salt the earth so it won't come up again."

That is a good statement. I have made statements like that here and again. But I am very fearful that this is really a massive infusion of responsibility into a relatively small department. It is almost like asking a mosquito to eat a gorilla. What we are really talking about here is a tripling of your own budget and, certainly, more than tripling of your responsibility, Mr. Secretary, in the Department of Commerce.

That really worries me, because I don't think we are accomplishing anything except sort of shadowboxing with ourselves and being able to go back out into the country and say we closed down the Department. There is even a conflict in the administration about the number of people affected. Mr. Baldrige has said this morning the plan would reduce 1,200 jobs. Mr. Meese from the White House on May 25 said it would reduce 3,000 jobs. Senator McClure, in a recent statement in the Congressional Record, said it would cut out between 100 and 150 jobs. I hope that we can come to agreement about the number of jobs that we are talking about. Also, Mr. Secretary Edwards, my good colleague, former colleague at the Governors' Conferences, what will be the effect on energy regulations? How many fewer regulations are we going to see in the field of energy in the Department of Commerce than the Department of Energy now has? How many regulations will this plan do away with?

Mr. **Edwards**. Senator, I don't think we can put our finger on the specific number of regulations. We have already removed about 200, and we hope to remove about 15 percent more of the regulations that are obstructing the production of energy and the smooth management of energy production generally. I don't think we can put our finger on it. We have saved about 1.1 million person-hours of reporting burden so far in the 18 months we have been here. As we move this over to Commerce, I'm sure that the Secretary of Commerce, and I are of a similar philosophy. I'm sure he is going to continue to try to lift the regulations off the backs of the companies so that they can go ahead and produce energy instead of filling out pages of paper and complying with redtape.

I would like to point out one thing: Whether this merger goes through or not, we have plans for the reduction of a certain number of people. We have tried to cut back and reduce as many as we can, because people mean costs, and costs are keeping the interest rates up. We need to lower the budget deficit. Whether we merge this or not, the reductions in personnel, as we can possibly handle it, depend on what programs you require us to have. Certainly, you play a major part in this role in deciding what the programs will be. We hope to reduce the number of people, and we would like to reduce some of the programs.

According to the recent conference, there has been an apparent budget resolution. More programs have been added than we asked for, and we will need more people to manage the programs. I don't think we can relate the people to whether or not we merge the departments.

Senator **Pryor**. Senator Levin has yielded to me 30 seconds so I can ask another question. I assume it is an oversight, Mr. Secretary, but in this new proposal that you are offering today, we are, in effect, repealing a provision in the present DOE structure which requires this Department to submit a biannual report to the Congress setting forth an energy plan and an alternative energy plan. Section 709 A repeals this provision, and I am very hopeful that in the Department of Commerce, Mr. Secretary Baldrige, should this plan prevail, that biannual report to the Congress would be continuing.

Thank you, Mr. Chairman, and thank you, Senator Levin.

Mr. **Wright**. Mr. Chairman, can I just add one thing?

Chairman **Roth**. Yes.

Mr. **Wright**. Senator, if I can very briefly, I just can't let that mosquito-gorilla thing go by, if you don't mind. The Department of Commerce, when Secretary Baldrige and I came in, had approximately 40,000 employees. Not to use a pun, but we shifted the Maritime Administration over to the Department of Transportation, and we would end up with a little bit under 30,000 employees. One of the difficulties, as you so well know, of managing a Cabinet Department is the number of people, the number of contracts you have and the number of other agencies that you have. This would end up with one more agency, it would end up with around the same number of people as when Secretary Baldrige came in, with the number of contracts which the Energy Department puts out every year, which is a major percent of their dollars—not employees directly—is around 21,000 contracts.

The Department of Commerce puts out about 14,000 to 15,000 contracts every year, and they both have approximately the same percentage of R&D expenditures.

It is not really a mosquito-gorilla, if you look at it from a management standpoint. As a matter of fact, from a management standpoint, the Department of Commerce employs more people.

Senator **Pryor**. Let's be very honest with ourselves. As we reduce the number of employees in the Department, by the same token, in most instances, we are also increasing the number of contractors who we are farming this same work out to. I think it is very important to make that distinction. The dollar figure is basically not changed. It is transferred from the Federal employee level to the private consultant, contractor arena, which has been increasing, as we know, in uncontrollable terms.

Mr. **Wright**. In many cases, you are right, Senator. Both these departments are very large in contractors.

Senator **Pryor**. What we are doing in this instance, I'm afraid, in transferring all these people to the Department of Commerce, is simply transferring the confusion. I simply hope we don't try to lead people to believe all the simplifications accompanying this. It sounds very good on paper, but how is it going to actually be implemented. It is a tough, hard chore trying to transform the Government. I applaud an attempt to perform it, but this proposal is a dubious answer to the problem.

Mr. **Baldrige**. I can't let that go by without at least a statement. If I hadn't spent 30 years in management, I probably wouldn't have a basis to sit here and make some dogmatic statements. This is not a question, in any way, shape, or form, of a mosquito swallowing an elephant. I can detect the humor behind the statement, and I can applaud the humor, but the reality of it is just not there. Let me explain something about management, if I may.

What we are doing, from a managerial point of view, is adding to my responsibility by establishing two separate line agencies which, instead of preserving the complexities of the Energy Department, reflect two clean-cut management functions, defense and energy.

Therefore, what I will be doing is managing two more top people. We have those at level 2. We had them at level 2 for very good reasons: So we could go out and get the best possible men to run them. As the rest of that chart indicates, we've provided a logical meshing of the two departments. This is not a question of a mosquito swallowing an elephant, sir.

Chairman **Roth**. Senator Levin?

Senator **Levin**. Thank you, Mr. Chairman.

Talking about mosquitos and elephants.

Senator **Pryor**. I brought the subject up. [Laughter.]

Senator **Levin**. I would like to inquire about the collective efforts of the Department of Energy against the oil companies. Secretary Edwards, you and I spoke about this in April of last year. There were about $7 billion in overcharges you estimated that were uncollected, oil industry overcharges; much of that estimated to be owing by the resellers of crude oil. At that time you indicated that you expected that all of that matter would be either collected or in litigation by September of this year.

Going over the record here, it started off back in March of 1981. You had a work plan to collect this money, the 84 top priority cases in March of 1981. I want to focus just on the resellers, the crude oil resellers. There were 24 of those top priority cases which involved crude oil resellers. Your work plan was to issue remedial orders or consent orders on those 24 top priority reseller cases before September 30 of 1981. When that deadline came, only 1 consent order had been issued out of the 24 which had been your goal.

It has been also the goal to dispose of all of the pending cases by September of this year, and yet we see that as of June 15, there are 186 pending cases involving resellers, and you have disposed in one way or another of roughly 100 cases in the last year or so. Do you expect to dispose of the other 186 pending cases involving resellers before September 30 when this reorganization would take effect?

Mr. Edwards. Senator, I don't know where you got the quote that I said that I estimated $7 billion. I don't believe I have ever been courageous enough to put a definite figure on how much was owed the Federal Government, because these figures vary in large amounts, and it is hard to say. I have tried to steer clear of that.

We have aggressively been trying to settle these cases. We have had some success. The crude oil resellers are a particular problem, and it is very interesting, this technique—I hate to call it a profession—but this specialty developed as a result of the regulatory apparatus that was in place. There was a lot of it that went on, some legal, some illegal. It is a very, very difficult problem, particularly the crude oil resellers. Regarding the large oil companies, we are pretty well on the way to settling those. Those we hope to have in litigation form by September 30.

The crude oil resellers may require more time. We prefer to get you a written formal report on where we stand on that from Ray Hanzlik, who is Administrator of our Economic Regulatory Administration. We would be glad to submit that for the record, but we are making progress in this area. We are in a very difficult situation because the rules and regulations change. They are extremely ambiguous. Some real fine companies who have always enjoyed a good and ethical reputation have been harmed because unknowingly, they have become involved in this situation due to the way the rules were set up.

We will be glad to give you a report on that for the record, Senator.

[The information follows:]

It is estimated that by the end of fiscal year 1982 approximately 64 crude reseller cases will still require additional audit and investigative work, which should be completed during the first half of fiscal year 1983. Additionally, it is estimated that approximately 15 special investigation cases involving crude resellers will be pending at the beginning of fiscal year 1983.

Senator Levin. Mr. Secretary, moving away from the $7 billion figure overall, which you did, indeed, not accept, and I correct my question on that, when we spoke here in April of last year.

Mr. Edwards. I thought I was a little smarter than that.

Senator Levin. Your own auditors, however, did estimate a few months ago before the House committee that there was $5 to $6 billion owing from the resellers. That is your auditor's figures, so we will start with that one.

Are all the audits going to be completed by September 30?

Mr. Edwards. Could I consult with my General Counsel?

Senator Levin. Through the time when the controls were taken off in January of 1981?

Mr. Edwards. My general counsel tells me that all of those cases, except those that have resisted subpenas, will be cleared up. There will be about 90 cases left unresolved.

Senator Levin. My question was, will all the audits be completed by September 30, through January 1981, when the controls were removed?

Mr. Edwards. Yes; that is correct.

Senator LEVIN. Will all the preliminary work prior to litigation be completed by September 30 of this year?

Mr. EDWARDS. No; that will not be completed, and some of this work will continue on into the next fiscal year.

Senator LEVIN. That is the question I am worried about, just with the few minutes I have this morning, because all this will be transferred to the Justice Department, but the figures we have on personnel do not show the personnel being transferred to the Justice Department. Do all these people you have involved in the crude oil resellers—this is involving $5 to $6 billion. Maybe that doesn't mean much around here, but $5 to $6 billion in overcharges by these crude oil resellers is owed to the Federal Government, the taxpayers of this country.

That is going to fall into a crack unless a transfer to the Justice Department takes place if this reorganization goes through. Is that your intention?

Mr. EDWARDS. We will transfer a sufficient number of people to take care of these cases. Based on current fiscal year 1982 levels, I understand that 637 would be transferred to the Justice Department.

Senator LEVIN. That is very different from the figures that we have. How many full-time equivalent year people will be transferred on enforcement orders, just on the resellers we are talking about?

Mr. EDWARDS. Why don't I get that for the record? I don't have those figures immediately available.

[The information follows:]

As Secretary Edwards stated, based on current fiscal year 1982 levels, 637 positions would be transferred to the Department of Justice (DOJ). The fiscal year 1983 budget request, however, proposees 415 FTE's in support of EPAA enforcement and litigation activities. If the request is adopted, this is the number that would be transferred. Both numbers include personnel from the Economic Regulatory Administration, Office of Hearings and Appeals, Office of General Counsel, and the Offices of the Assistant Secretaries for Management and Administration, and Congressional, Intergovernmental and Public Affairs. Because of the dynamic nature of the enforcement program, it is not possible to provide a specific, fixed number of those FTE's that will be devoted exclusively to crude reseller enforcement orders. As Secretary Edwards indicated earlier in his testimony, the crude reseller cases will require more time to complete than other facets of the enforcement program. As work is completed during fiscal year 1982 on the other facets of the program, additional resources will be assigned to the crude reseller effort to insure proper and prompt completion of this facet of the program during fiscal year 1983.

Senator LEVIN. All right. I would like to put them in the record, the figures that I had, Mr. Chairman, at this point, showing no full-time equivalents, and we are talking about resellers now, and audits: none on enforcement; 18 on special investigations, 4 other ones, 15 on settlements, making a total of 37 full-time equivalent people on the resellers. We have $5 to $6 billion owing, and that is of grave, grave concern to me. I would like to include that in the record at this point.

Chairman ROTH. Without objection.

[The information referred to follows:]

OUTPUT/WORKLOAD MEASURES

	Fiscal year—					
	1981		1982		1983	
	Units	FTE	Units	FTE	Units	FTE
DOE and FERC appeals	50	157	95	121	85	163
District court and TECA actions	20	35	20	15	30	53
Major refiner specific:						
Company audits pending	25	163	10	67		
Enforcement orders	88	96	42	40		
Special investigations	15	15	10	4	2	3
FOI and other requests	900	14	400	5	300	4
Settlements and verifications	20	35	38	17		[1] 3
Other than major refiner specific:						
Company audits pending	460	452	380	108		
Enforcement orders	1,230	84	965	42		
Special investigations	100	60	90	44	13	18
FOI and other requests	1,050	17	400	5	300	4
Settlements and verifications	295	21	640	17		[1] 15
Total		1,149		[2, 3] 485		[3] 263

[1] Verifications only.

[2] To be supplemented with additional FTE's; therefore, the ratio of FTE's to work units is approximate.

[3] Includes 6 and 13 other than full-time permanent, respectively.

Source. From the Congressional Budget Request, fiscal year 1983, Volume 1, Petroleum Regulatory Activities prepared by the U.S. Department of Energy, February 1982.

Senator LEVIN. Can you estimate for us how much money will be owing from the overcharges by these folks as of September 30 of this year? Can you give us the estimate?

Mr. EDWARDS. Mr. Levin, I wouldn't dare try to give you that figure because, like I said before, the rules and regulations are so uncertain and changing that I would rather the courts give you that figure after the final determination is made and settlement is in court.

Senator LEVIN. Are you familiar with the $5 to $6 billion estimate which your auditors, DOE auditors made before the House a few months ago?

Mr. EDWARDS. Senator, I have been familiar with a great number of estimates that have been handed out by people in the Department on many occasions. I think the largest one was $16 billion, and one time it was $11 billion. I have heard these figures thrown out from time to time.

Senator LEVIN. You don't, then, concur in the figure of your auditors before the House committee a few months ago?

Mr. EDWARDS. I would like to talk to those auditors and see how they arrived at those figures and ask my General Counsel to give you an opinion on that.

[The information follows:]

ERA has already issued enforcement documents alleging crude reseller violations of about $500 million. About 170 investigations involving crude resellers remain open. Until those investigations are completed, any attempt to determine the aggregate amount of overcharges would be mere speculation.

Senator LEVIN. Thank you, Mr. Chairman. My time is up.

Chairman ROTH. Secretary Baldrige, I have two or three additional questions I would like to ask you. One does deal with the question of long-term energy planning. I think there is real concern here in the Congress that reorganization might result in a downplay or a failure to try to take a long look at where we will be, say, in the 1990's or even later. As I understand your testimony, you expect the Government to be very much involved in research and development, particularly basic research.

You look upon the private sector to develop energy where it is feasible, that the Government should sort of get out of that kind of business, but do I correctly understand that as a result of this reorganization, the Government would be very much involved and concerned with the long-term requirements of energy for this country?

Mr. BALDRIGE. Absolutely, Senator, and I think we would have more resources to enable us to determine those requirements better. The point you made on development, I would like to underscore. Again, we believe the Government's role there is in the kinds of high-risk R&D that the Government should finance. It is in the areas involving high risk, high technology, long-term payback that you would not expect the private sector to do. They couldn't afford to do it.

But when the technology is close enough to practical use, we do not believe the Government should subsidize those areas, because that has been proven wrong in the past.

Chairman ROTH. In other words, we are not going to merely wash our hands of the problems facing us with respect to energy, but in effect, we are hoping to make better utilization of Government funds for basic research, for long-term developments?

Mr. BALDRIGE. Absolutely. I have a very strong feeling that research and development is an absolute necessity in this country. What we are talking about are the proper divisions of that effort. We have to address this if we are going to keep abreast of conditions that are changing so fast and in a complex world. Other nations are doing it, and we have to simply keep up. We are talking about the best divisions of those responsibilities.

Chairman ROTH. Speaking about a division of responsibility in the area of research and development, I have had some representatives of university laboratories express concern that in these days, there seems to be a tendency for some Government laboratories to want to secure more and more of the work for the Government work labs and downplay the responsibility of university laboratories. This is something you may want to comment on, too, Mr. Edwards. I personally feel it extraordinarily important that we utilize our university laboratories to a maximum extent, and first I would like to ask you, Mr. Edwards, has there been, in recent months, with the reduction of funds, a tendency to use more of those funds in-house and less through universities?

Mr. EDWARDS. Senator, I will agree with you in a general way that we ought to utilize our research facilities at the universities, particularly since I plan to join one in the fall. In the Department, I think there has been a tendency to move into the National Laboratories, somewhat, but some of these, of course, are managed by universities. I think we have to guard against this, because I think the universities certainly have a major part to play in the research and development efforts not only in the Department of Energy, but in a broad multidisciplinary way in years to come. So I will agree with you that I think we should do that, and I am sure Secretary

Baldrige will look at that and the kind of approaches to secure those expenditures.

Chairman ROTH. Would you care to comment?

Mr. BALDRIGE. Yes.

This country became the leader in high technology through a very diverse series of efforts, not just one by the Government or one by national labs or one effort by university laboratories. It included individuals. It included university laboratories, Government laboratories, and national efforts. We need to protect that diversity. I think that is very important. We cannot get so structured that we keep out different viewpoints, differing priorities and different kinds of research. We need as much diversity as we can get.

Chairman ROTH. I am very proud and supportive of our federally owned laboratories, that I think they have, in many cases, done an outstanding job. But I also agree with you that diversity, perhaps, has been a key to our innovativeness and our inventiveness. I think that your universities and other laboratories in the private sector should be used in maximum measure, and I am particularly concerned when I get these complaints from the universities that perhaps there has been a downplay on the role in the energy picture. So I am happy to hear your words of support.

One other area of concern, and I am sure we will be exploring this in more detail, this is again with respect to the balanced picture. This goes back to strategic planning. Again, I think there is a lot of real concern on the Hill that in the long term we make certain that we use whatever funds are available to make progress in as many areas as we can. I, for one, am not willing to put all my eggs in one basket on energy. I think you agree with me that the future growth of this country depends very largely on an adequate supply of energy at reasonable costs.

So that we cannot afford, any of us, to play favorites. I do believe that we must develop nuclear power as we proceed with the more traditional forms of energy. At the same time, would it not be your expectation to do a great deal in the area of renewable energy rersearch and development?

Mr. BALDRIGE. It depends, obviously, Senator, on what you mean by "a great deal." I have not been involved in the budget deliberations over the 1983 budget. That was before the administration had this particular position together, so I was not involved. Therefore, not having had a chance to experience this firsthand, I would say that a year from now I would have my own definite ideas. But I can assure you that if they include increases or decreases in any particular sector, I would certainly speak up for them as strong as I could inside the administration.

There are definite areas where we need research and development, and the private sector cannot do it. There are definite areas where the private sector is presently doing it as well as it could be done, and people expect too much out of a certain area. They get pet theories or something, and they are just not proved out. That takes some judgment; it takes some research; it takes some digging to get the facts on that. That is one of the reasons that the Commerce Department can provide some real backup. Through our economic affairs section, which performs sectoral studies; and has continuing access to material and information coming in from all parts of the private sector, We can make rational judgments or new policy.

Chairman ROTH. I think your last statement is particularly important. If I understand what you are saying, you have made no prejudgments. This is an ongoing, continuing examination of the disciplines, and that this reorganization is not biased in favor of any particular type of energy, but what you will do will depend upon future developments.

Mr. BALDRIGE. Absolutely.

I wouldn't take this job any other way.

Chairman ROTH. Senator Schmitt?

Senator SCHMITT. Thank you, Mr. Chairman.

Secretary Baldrige, Senator Stevens described the energy base in Alaska. I don't think that New Mexico has to take a back seat to that, particularly when you include uranium, and you include the two outstanding national laboratories that are there involved both in energy and weapons activities. So you can understand my concern and desire that you be successful in your managerial capacity.

Section 301 creates two Deputy Secretaries, one for defense programs and another for energy programs, who shall report to the Secretary. It also provides that you can, by written delegation, give that reporting function to the Deputy Secretary for Commerce. Have you formed an opinion as to what you may do with respect to that authority? That is some flexibility.

Mr. BALDRIGE. Yes, yes, I would run that Department, and I think most future Secretaries would also, in the same way we run it now.

I think it is best described as calling the Secretary and the Deputy Secretary simply the Office of the Secretary. We have to be interchangeable—it is not a question of appointing one or the other.

From a mangerial point of view, there is so much going on in the way of policy, policy implementation, trying to get an administration position on most important areas, and the Secretary, I believe, should rightfully spend a lot of time on that. It is impossible for him to do that correctly with all the study that that takes and be able to run the internal affairs of each of the agencies reporting to him.

So we had this splitup so that the Deputy Secretaries are responsible for the day-to-day management of all the departments, and the Secretary is responsible for the policy. That seems to be the best division, as far as I am concerned. What we do is have the Deputy Secretary sit in on all policy meetings and strategy meetings on policy whenever and wherever he can, but his primary responsibility is to actually manage the various functions.

It is understood that any one of the Department heads can get to see both the Secretary and the Deputy Secretary at any time they want to. They do not abuse that.

So it is a system involving open access to me even for day-to-day things that are the responsibility of the Deputy Secretary; and for policy. I will try to bring the Deputy Secretary in on as many of those policy matters as I can.

Senator SCHMITT. In section 402, there is created an Assistant Secretary for Strategic Planning with responsibilities for strategic materials and industrial mobilization that were under the authority of the Department of Commerce prior to the date of enactment of the act.

Why should not the responsibility for energy emergency planning also be under the authority of this Assistant Secretary? I find it hard, but then again maybe from a different perspective, to separate energy planning from those other functions.

Mr. BALDRIGE. You have a good point there, Senator. We discussed this at great length with a good many of the key Senators who were interested in sponsoring this bill, and this was one of the things that we truly did consult with them on, but we did not come down here with a bill cast in concrete. We listened to people and tried to take care of their concerns.

There was considerable feeling, and you can make a case for both sides, your side or this side, that the functions should be kept together as you suggest, but I can guarantee you that the Assistant Secretary for Strategic Planning and the Assistant Secretary for Energy Emergency Planning are going to be working closely together. We will get the result. This took care of some concerns. It seemed to be appropriate to the Senate, and I have no problem.

Senator SCHMITT. We will, again, go into more depth on that issue in the committee. Will this particular Assistant Secretary have the responsibilities given to the Department of Commerce under the National Materials and Minerals Policy Act?

Mr. BALDRIGE. The Assistant Secretary for Strategic Planning?

Senator SCHMITT. Yes.

Mr. BALDRIGE. Yes.

Senator SCHMITT. Mr. Secretary, it has long been my feeling, in fact, probably too long, that we made a mistake in our solar research and development in that we should have created, back in the early seventies, an organization similar to the old NACA, that would work on solar research and technology; it would be a base of technology from which the private sector could draw, and it would have been built between the private sector and the Government and academia. That is the way the other technologies developed, and I think that solar energy would have been appropriately applied to that model. Is it conceivable that if such a decision were made, that such an organization would be organized in order to enhance energy at a low cost?

Mr. BALDRIGE. If this transfer took place, and after I became more familiar with that, what you suggest is always possible. But I don't want to say it is probable, because I have not had a chance to view that——

Senator SCHMITT. Do you think you have that flexibility in the organization, or would you like to supply for the record whether you have that flexibility?

Mr. BALDRIGE. Before I address that, let me finish up. I am not sure, Senator, that you can compare the solar energy business and the aeronautical business, in view of the obvious discrepancy. Until I get my opinion changed, at least my present feeling is that most of the solar technical advances and understandings of what can be done with solar energy, are in place. It is not that complicated a technology compared to many other technologies.

What is complicated is how you transfer from the panels or whatever methods are being used and actually make pumps and so forth work at a cost that is affordable. We have seen the industry develop, as I mentioned before, in hot water heating, to the point where it is practical in space heating, it is practical in some parts of the country, but in other parts, it isn't. So I don't think there is any new great secret waiting to be found from——

Senator SCHMITT. There isn't, and that is why I used the NACA model. You have made my case very well, and that is exactly why that model, cooperatively within the industry, academia and the Government, would work so beautifully for the solar industry. We will talk about it some more.

Mr. Secretary, would you expect, under this new Department, to evaluate our uranium import policy?

Mr. BALDRIGE. Yes. That would be part of the job.

Senator SCHMITT. We are destroying an industry, and in all projections of cost, the foreign suppliers are such that we will not be able to develop that industry under current trade policies in the United States. It will disappear.

Mr. BALDRIGE. That is one of the policy decisions we clearly have to make.

Senator SCHMITT. Thank you.

Thank you, Mr. Chairman.

Chairman ROTH. I will next call on Senator Percy. I want to apologize to the Secretaries and others that you have been here for several hours, and I appreciate your patience but I do know that Senator Percy has a few more questions.

Senator PERCY. I do have, and I will try to be as concise as I can.

We had to go over and pass the bill, the fastest bill I ever passed, $50 million for relief for Lebanon, right on the brink of a possible invasion of Beirut. Who knows what the result is going to be? It is a terribly human tragedy.

Secretary Edwards, I would just like to go back to last December when you testified before the Subcommittee on Energy, Nuclear Proliferation, and Government Processes. I really clearly asked at that time if you could get back to me within 90 days with a set of new creative conservation initiatives, not just the old programs which may not be working, but a new bold program based on serious analysis. Staff has followed up conscientiously with Mr. Tribble, Assistant Secretary for Conservation and Renewable Resources. All we have seen are suggestions to further slash these programs without any creative thought given to the issue.

In my office, Mr. Tribble firmly committed himself to be an advocate for conservation. I consider that pledge to be broken, because I simply have not seen any of that.

Are you aware of the fact that I have not yet had any response to my request for a creative program for conservation? I can remember the time the chairman of General Motors took the time to come down here to see Secretary Schlesinger and urge that the Government spend more money in the area of conservation; it would be the fastest return of any investment we made. You know I believe in market pricing, and we solidly came out for it, but he still felt there were plenty of areas to speed up the process of conservation, where the return would be very high, and there are permanent returns. What is the reason that we still have not had any kind of new creative program despite the length of time the Department has been underway in this administration?

Mr. EDWARDS. Senator, I do not know how deep my commitment was to bringing up these creative programs for conservation; but I remember the discussion we had, and once again, I am sure there is no need to really repeat it, because we think that the price drives the conservation. That is the reason that I go out to get a smaller car, a more economic car, energy-economic-wise. That is why I get up in my attic on a hot summer day and put in more insulation. That is why we put floorboards under the old home and insulate it. There is no creativity, perhaps, that has been brought about by us at the Department, but it is the resentment of paying the high energy costs that makes me do that. It is just an economic fact that Americans are, in fact, conserving. As I said earlier in this area, we can show where we have conserved almost as much oil as we have found in new reserves in the past 3 years.

So you see, organizations such as the magnificent organization that you are involved in have helped, and they have focused attention on the fact that we need to conserve energy; but the price is still the driving factor. I guess I have run out of creativity in the 18 months I have been here. I cannot create any more effective way to conserve energy than through the marketplace. I know you believe in the marketplace, too, coming from where you came from.

I will talk to Mr. Tribble and see—I would like to renew what my commitment was. If you would instruct me in writing where I committed to do this, I always try to fulfill my commitments, Senator.

Senator PERCY. We will forward that to you.

Mr. EDWARDS. Let me say that we made a commitment to you to be creative. We will try to jack up a little creativity in my inner soul, and I will try to get something over to you that is a commitment.

Senator PERCY. Thank you.

Secretary Baldrige, just going back to the process that you now have to go through, I think I have found in 16 years in the Senate, and on this committee, particularly, that we can save a great deal of time if we can work things out before legislation goes to the floor. It endangers even scheduling the bill. I sit every Tuesday with Senator Baker when we schedule the work of the Senate, and it makes it more difficult if it looks controversial, especially when we consider the number of things we have to get done. We do not have the authorization bills completed; we have an election this year; we have recesses; we have many things that have to happen. I can see this not happening unless we get a bill that is fairly clean and is not going to be controversial. I can just assure you that elevating all the other fuels on a more balanced program is so crucial to Senator Cohen, myself, and so many other Senators, that we are going to have to handle it on the floor. If that is going to take time, I do not know if we can get this scheduled. Can we try to work together at a staff level or with us directly, to the extent that we all have time, to see if we cannot resolve those issues here in the committee, which would then give the chairman a cleaner bill, less controversial, which then we can say, "Let's get this bill scheduled and let's get it enacted this year?"

Chairman **ROTH**. Let the Chair just point out that these kinds of negotiations have been going on for the past many months. I do want to say that on behalf of Secretary Baldrige, Secretary Edwards, as well as others, there has been a lot of give and take, and I agree with what the Senator from Illinois is saying, that this is a procedure that will continue, but I would assure him that from past experience, these gentlemen are willing to listen and work and discuss.

Senator **PERCY**. I have always found them both to be cooperative. I just want to state this for the record, because Senator Cohen could not be here this morning. We will make our best effort to try to resolve those problems so that we can go to the floor with an assurance that we will get the time slot—that we can get that legislation out of here as fast as we were able to move the Lebanese legislation this morning.

Mr. **BALDRIGE**. Senator, could I make a statement that I think is the height of practicality? The administration wants to schedule very quickly any additional hearings if there are any that may be needed, and we need to proceed to mark up as soon as possible to help us in the House. We need speed desperately here. The practical statement I wanted to make is there are no major concerns that I am aware of. I don't want to write my name in blood with that, but there are no major concerns with some of the potential shiftings here and there that the administration would have.

The practical problem is getting your colleagues to agree with some of the jurisdictional problems involved, and we would be glad to entertain any other ideas that any of you might have.

Senator **PERCY**. Specifically, I have advanced certain proposals and ideas, both in our private meetings and in public meeings. Now, let us just take one of them, for instance. I realize that there is a strong interest in the development of nuclear technology and the promotion of nuclear trade. I have been for that, but it is important, particularly to this committee, to have someone in the new organization to advocate nonproliferation. Currently the function is handled by the Assistant Secretary for International Affairs, whose elimination is proposed under the new organization. I think you know it is important that the nonproliferation function not be assigned to the Deputy Secretary of Energy. Nonproliferation is one of the most complex problems we have ever faced. It is a tough problem. This responsibility does not belong to those who are responsible for promoting nuclear trade and technology, but rather to someone directly concerned with our national security.

The function appears to rightfully belong under the Assistant Secretary for Security Affairs. I propose to offer an amendment to change the Assistant Secretary to an Assistant Secretary for Nuclear Nonproliferation and Security Affairs. Would, for instance, the administration support such a change?

Mr. **BALDRIGE**. Senator, the responsibility for nonproliferation really does not rest with the Associate Deputy Secretary the way we have run this. The Associate Deputy Secretary is the right arm of the Deputy Secretary for Energy, and it is the Deputy Secretary's responsibility, clearly. It isn't fuzzed up at all. It is the

Deputy Secretary's responsibility to be for nuclear nonproliferation.

If you want to shift that from him to the Assistant Secretary for Security Affairs, as far as I'm concerned, I can run it either way. I think that is more of a Senate problem than it is a problem with me. I happen to like it where it is, but it could work well in the other place, too. So that is not a problem you have with us. It is a problem with the Senate.

Senator PERCY. The proposed reorganization would seem to put it in an area with a conflict of interest. The other area—that of security—would have no conflict of interest. We are looking for security, but what we are worried about is 20 countries coming to have a nuclear capability. That is what the 5,000 people gathered in New York were talking about. This is what is being said at rallies around the world. This is the coming movement. If government does not catch up to this, it is going to take it away. I think we need a move where we do not have any conflict of interest. These concerned people are looking to preserve the human race, not how we are going to destroy it through our own nuclear race.

Mr. BALDRIGE. We can work with either one and make either one of them work.

Senator PERCY. If I hear you correctly, then you have accepted that change. If you can live with either one, I will move that the committee do it that way.

Mr. BALDRIGE. The problem lies in the Senate. I have agreed it should be up there. We talked about the other, but as I said, we could make either one work.

Senator PERCY. I think with that spirit of confidence, work will carry forward in other areas. I would hope that we can move this along swiftly. I would like to see the administration's program put in place as early in the administration's term as we can. Yet I do express concerns that I know will hold up passage on the floor if we somehow do not make accommodations.

Thank you very much, indeed. We appreciate your testimony.

Thank you, Mr. Chairman.

Chairman ROTH. Gentlemen, I know you are anxious to leave. Thank you for your cooperation in being here. We will leave the record open until Tuesday. The Chair will announce any further hearings that we will have.

[The prepared statements of Messrs. Weinberger, Baldrige, and Wright follow. The responses of Messrs. Baldrige, Edwards, and Wright to written questions also follow:]

PREPARED STATEMENT OF MR. WEINBERGER

I am pleased to speak to you today in support of the President's proposal to reorganize Federal energy activities. Secretaries Baldrige, Edwards, and others will address the benefits that will derive with respect to meeting the Nation's energy needs. I will restrict my comments to one facet of the reorganization, the transfer of the Department of Energy's defense-related activities. I want to assure you that the health, the vitality, and the leadership of these critical programs, will in no way be impaired by the proposed reorganization. The reorganization will strengthen these programs.

Today approximately 40 percent of the DOE budget is allocated to nuclear weapons, naval reactors and other defense activities. The involvement of the Department of Energy, or its predecessors, ERDA and AEC, in vital national security activities, goes back more than 35 years. During this time the partnership between these organizations and the Department of Defense has provided the Nation a safe, secure and effective nuclear deterrent. Therefore it is not surprising that the DOD was profoundly interested in the reorganization of DOE activities and that the DOD was an active participant in the administration's deliberations and decisions that led to this energy reorganization bill. Our objective in the reorganization process was to preserve and where possible, strengthen features which evolved over the years and which vitally contribute to the success of the nuclear weapon and other DOE defense-related programs. The nuclear weapon program is by far the largest of DOE's defense activities. Early in the deliberations I established the following criteria to be fulfilled by any reorganization of the nuclear weapon program.

1. Improve (not just maintain) the ability of the program to function effectively within the Government; that is, to obtain funds and to influence decisions important to it.

2. Maintain the important strictures and intent of the Atomic Energy Act. The nuclear weapons program throughout its history has had responsibilities in additioin to meeting presidentially-approved DOD requirements to develop, produce, and assure lifetime reliability of weapons. These other responsibilities include maintaining the nuclear weapon technology base, conducting aggressive research and development programs on its own initiative, insuring proper handling of restricted data and finally (and in some ways most important in the intent of the act) providing unconstrained, expert judgment on nuclear weapon matters, especially regarding safety and security.

3. Improve, and maintain over the long term, the technical quality of the nuclear weapons enterprise (people and facilities) by adequate funding to support a stable, level-of-effort research and development program and by a management style appropriate to long-range, leading edge research.

I further proposed that meeting these criteria would require, among other features, that:

1. The entire nuclear weapon complex—laboratories, Nevada test site, weapon and nuclear materials production plants—continue to be managed as a unified entity.

2. Leadership of the programs be at a very high level within its organization. The program should not be "submerged" within an organization with other interests and responsibilities.

3. The military role in the program—as specified in the Atomic Energy Act and as embodied by the director of military applications and the functions of the military liaison committee—be preserved.

4. The budget of the nuclear weapons program should be treated as a separate and discrete part of the organization's overall budget and should not be traded off against other activities of the organization.

We also established criteria for the other defense programs in DOE. The naval reactor program has a long history of intimate association with the civilian nuclear energy programs in DOE and its predecessor organizations. An active duty admiral serves jointly as the director of naval propulsion programs (for the Navy) and as the Deputy Assistant Secretary for naval reactors in DOE. Continued effectiveness, high standards of safety, and economy of resources are best served if the naval reactor program remains closely linked to a vigorous civilian nuclear power reactor program.

The proposed reorganization meets all these criteria. The nuclear weapons program is kept intact, the naval reactor programs continues its close relation with the civilian nuclear power activities, and the special military roles in these programs are maintained.

The proposed arrangement offers a good balance between, on one hand, close ties to a cabinet level official and, on the other hand, sufficient authority to prevent these programs from being submerged within an organization of dissimilar priorities and interests. The head of defense programs would report directly to the Secretary of Commerce; thus, the programs would benefit from Cabinet level access and review.

The leadership of the program will have the knowledge and authority to execute its responsibilities. The head of defense programs will be a deputy secretary within the Department of Commerce (at a level II executive schedule appointed by the President with the advice and consent of the Senate). The deputy must—by statute—be specially qualified by ability, background, training, and experience to manage the nuclear defense programs. This deputy would also be an advisor to the President on those nuclear weapon matters that would be the responsibility of the Department of Commerce.

With regard to DOE's other defense-related activities, the naval and strategic petroleum reserves, and energy disruption preparedness planning, our objectives are to ensure the responsiveness of these programs to national defense needs and to provide linkage of these programs to similar national emergency planning activities.

The naval petroleum reserve, the strategic petroleum reserve, and the energy emergency preparedness planning functions will be the responsibility of an Assistant Secretary in the Department of Commerce whose job it will be to reduce U.S. vulnerability to energy supply interruptions.

We have no doubts that the proposed energy reorganization fulfills our fundamental objective to preserve and where possible strengthen features which evolved over the years and which vitally contribute to the success of DOE's defense-related programs.

In the final analysis, of course, successful programs depend on the quality of the leadership and availability of resources. With the arrangements provided by the reorganization, the administration will be able to assure that the defense programs currently in DOE will have the effective leadership needed to work with Congress and the DOD to provide sufficient resources and fulfill their critical national security responsibilities.

PREPARED STATEMENT OF MR. BALDRIGE

Mr. Chairman and members of the Committee, I am very pleased to join with my colleagues today in urging prompt enactment of S. 2562, the Federal Energy Reorganization Act of 1982, a bill which will substantially improve the way the Federal Government performs its responsibilities with respect to energy.

Since the President first announced his energy reorganization proposal, we in the executive branch have had many occasions to meet with Members of Congress, industry representatives, scientists, and others in order to make sure we understood and could accommodate their concerns wherever possible. It has been a long process but I believe the bill now before you successfully resolves the major issues that came up during those discussions.

In its current form, S. 2562 represents what should be the final chapter in the Federal Government's efforts to define its energy responsibilities and to establish appropriate organizational arrangements to assure their proper performance. It draws heavily on the problems we experienced in earlier chapters and the lessons we learned from them, as described by Secretary Edwards.

Those experiences showed us that any legislation of this nature had to rest on two fundamental principles.

The first is that the agency to which we look for the development of responsible energy policy must also have broad-based domestic and international economic policy responsibility and the comprehensive economic expertise that goes along with it.

Energy policy development simply cannot proceed in a vacuum. Significant changes are taking place today in international economic relationships due to differences in economic performance among countries, the emergence of new international competitors, shifting trade patterns and unpredictable international political and social developments. Accordingly, economic policy developers face enormous difficulties in devising strategies for encouraging America's economic growth. That task should not be complicated further by continuing to treat energy as though it were somehow separate from other policy development processes and economic considerations.

The second is that regardless of what experience may have taught us about the soundness of the policies pursued in prior years, it confirmed the wisdom of keeping core energy functions intact. It was the splintering of energy functions, coupled with the isolation of energy policymaking from overall economic policy development, that left us so unprepared to cope with the embargo of 1973 and its aftermath.

Mr. Chairman, the bill now pending before this committee demonstrates how clearly these lessons have been learned. With your permission, I will discuss its key features with particular emphasis on three aspects: Why most DOE authorities will be centered in Commerce, how Commerce will perform them, and how the remaining authorities will be distributed.

The word "distribution" is somewhat misleading. Most of the central functions would be kept intact. Thus, without attempting to be exhaustive, the Department of Commerce will assume responsibility for:

Long-term, high-risk, but potentially high-payoff energy research for which private sector incentives are insufficient to assure needed investment; the nuclear weapons program, including weapons research, development, testing, production and surveillance, and the production of special nuclear materials; energy emergency preparedness, including analysis and review of energy policy issues related to long-term global supply, emergency and contingency planning for supply disruptions, and responsibility for the strategic and naval petroleum reserves; international energy responsibilities, including U.S. representation in international programs, negotiation of bilateral agreements, and DOE's nuclear nonproliferation responsibilities; and the development of energy policy and the collection, analysis and dissemination of the energy data to assist public and private decisionmakers.

This approach reflects the President's view that while energy should not be housed in a separate cabinet-level agency, Federal energy activities are still a vital supplement to private sector activities in selected areas. As such, responsibility for performing them should neither be fragmented arbitrarily nor assigned to an agency which does not have cabinet-level status.

The functions which would be transferred elsewhere include responsibilities for coal mining R&D and the five power marketing administrations, which would go to the Department of the Interior; alcohol fuels financial assistance responsibilities, which would go to the Department of Agriculture; and compliance responsibilities remaining under the now-expired emergency petroleum allocation act, which would go to the Department of Justice.

In other words, the concept of a single cabinet-level agency responsible to the President, the Congress and, ultimately, the public for energy-related policy needs will be preserved. Only those functions which clearly lie within the mission and expertise of other agencies, the absence of which would not inhibit Commerce's ability to perform a central energy role, will go elsewhere.

Why Commerce? There are several reasons.

First, the underlying premise of this reorganization is a reasoned reliance on the marketplace. This does not mean a blind faith. Rather, it means that the agency responsible for energy must have a thorough understanding of how a market economy works, how its different sectors interact with each other and how individual firms make particular decisions. Sound energy emergency planning, for example, requires a detailed understanding of the economy's resiliency when faced with supply disruptions. This requires an understanding not just of the economy as a whole, but a detailed understanding of the status of the various industries within it.

Commerce has this understanding and is constantly recognizing new opportunities to improve its economic expertise. We have, for example, recently reorganized ourselves to provide for greater coordination between our data gatherers and our policy analysts under the direction of our newly-established Under Secretary for economic affairs.

We are also developing and implementing a productivity, technology and innovation program which will concentrate on identifying, analyzing, and eliminating barriers to private sector productivity improvement and technological innovation. Similarly, we are undertaking a competitive assessment effort that will help the Federal Government assess more effectively the impact of its policies on industrial performance, with particular emphasis on highlighting areas which are potential candidates for regulatory reform. In addition, we are also upgrading the scope and depth of the department's analysis of major industrial sectors.

Second, the President's proposal quite properly reflects that the agency that is to assume DOE's responsibilities must not only understand how our economy works—but how it works as part of the world market. That, of course, means trade. Energy-related industries are rapid growth industries and there is substantial potential for increasing our exports of energy-related equipment and products. The bill now before you should set the stage for an era of close cooperation between trade and energy specialists which I am confident will result in new opportunities for our energy sector to expand its share of the international market.

Third—and most important—the transfer reflects the President's intention that the Department which represents and best understands the Nation's business sector play a greater role in executive branch decisionmaking with respect to national and international economic policy.

In years past, Commerce's main role was to provide meaningful statistical and technical information. This will always be a major role, but today we are doing much more. We have assumed important new trade responsibilities; we serve as the executive branch focal point for the development of policies for the auto industry; we are represented on every important economic cabinet council—and I am chairman of the Cabinet Council on Commerce and Trade. We have developed, or are developing, new programs of the sort I described a few moments ago. In short, the Department is in shape to assume the responsibilities we are talking about today.

That brings me to the final subject: how will Commerce organize and perform these new responsiblities?

We've supplied the committee with various organizational charts and other exploratory materials, so I'll highlight some of the major features, which Mr. Wright will discuss in greater detail. We have tried to organize so that there will be as little disruption as possible to continuing programs or to the working relationships with other agencies and the public that DOE personnel have developed over the past several years.

First, we have divided the functions into two basic subject areas—defense programs and general energy research-each of which will be headed by a Deputy Secretary. Both officers will work closely with each other and the other commerce departments.

This approach ensures that these important responsibilities will be performed by persons with suitable stature to discharge them properly—in short, subject to secretarial guidance but without the need for constant secretarial approval. I believe this organization will improve the current pattern in which various energy responsibilities are widely dispersed among a host of assistant secretaries of equal status and equal accessibility ot the Secretary, causing each to become an advocate for a relatively small set of program responsibilities. Instead, I will expect these deputies to have a broader perspective and to make most of the hard choices among priorities within their respective areas of responsibilities.

A second feature is flexibility—particularly on the energy research side. Although the bill assigns various energy research and emergency preparedness functions to specified assistant secretaries, we recognize that priorities may change over time and what may require emphasis today may seem less important tomorrow or vice versa. Accordingly, it permits these functions to be reassigned among these officers as circumstances change.

Third, the bill before you preserves the role and integrity of the energy information administration and, by retitling it the bureau of energy information and placing it within the jurisdiction of our under Secretary for Economic Affairs, makes it the organizational equivalent of our chief statistical components—the bureau of the census, the bureau of economic analysis, and the bureau of industrial economics. By working together cooperatively, these organizations can effectively provide us with increased capabilities for obtaining the necessary data for informed public and private energy decisions.

Mr. Chairman, we strongly believe that this bill will result in some very real and substantial gains for the government and the public it serves.

It reflects the importance of increasing our reliance on the marketplace to allocate resources and reducing our dependence on the federal government as energy planner, manager, and regulator.

It permits the federal government to concentrate its efforts on a more clearly defined set of responsibilities such as establishing sound fiscal, monetary and regulatory policies that encourage the efficient production and consumption of energy, supporting national defense needs, planning for major energy supply disruptions, supporting essential research and development not otherwise likely to be undertaken, and working with other nations to solve common energy problems.

It preserves much of the accumulated expertise that we have built up in recent years to perform these duties.

Mr. Chairman, the administration believes that this legislation combines the advantages that were achieved when energy functions were consolidated with additional efficiencies that can be realized by (1) integrating these functions with related DOC activities and (2) eliminating activities in which the federal presence has been unproductive.

In no way does this proposal imply that energy has diminished importance. Energy affects where we live and how we live. Its availability and cost influence the pace and direction of all other economic developments in our economy. It does, however, imply a different approach—one that treats energy as a business activity. The president's proposal recognizes that producers, suppliers, distributors, equipment manufacturers and consumers will take the right steps if we let them. It recognizes that the key to an effective energy policy is a knowledge of what makes business tick rather than central planning and price/supply manipulation which can only serve to make our problems worse.

That completes my statement, Mr. Chairman, again, I want to thank you and the members of the committee for your attention and courtesy.

DEPARTMENT OF COMMERCE RESPONSES TO WRITTEN QUESTIONS

RESPONSES OF MR. BALDRIGE TO WRITTEN QUESTIONS SUBMITTED BY SENATOR COHEN

Question 1. Am I correct in stating that this legislation provides the Secretary of Commerce with the authority to set rates for importing and exporting electricity and natural gas?

Furthermore, Title VI, Sec. 624 of the bill provides the Department of Commerce with the authority to propose rules to FERC and to establish deadlines for their consideration. This awesome power to control FERC's agenda could have a major impact on the final outcome. Do we really want major decisions on generation of electricity to be subject to the political process?

Answer. Under the current DOE Organization Act, the Secretary of Energy has statutory authority to regulate imports or exports of natural gas. Such regulation is specifically excluded from FERC's jurisdiction. This has been construed to give the Secretary of Energy jurisdiction over interstate shipments of natural gas originating as imports and to give FERC jurisdiction over interstate shipments originating from domestic production. The Secretary of Energy has statutory authority to delegate functions to FERC and has delegated his authority over interstate shipments of imported natural gas to FERC.

FERA has retained this same basic structure by granting the Secretary of Commerce the authority to regulate imports or exports of natural gas, and excluding this authority from the jurisdiction of FERC. As in the DOE Organization Act, FERA provides that the Secretary of Commerce may assign his authority to delegate functions to FERC. Under section 612(b) of FERA, this assignment may occur with the consent of the Commission and following public notice.

With regard to section 624 of Title IV, this language tracks verbatim sections 403 (a) and (b) of the DOE Organization Act. Since we are not changing the present law, obviously no policy change is reflected in section 624 of FERA.

Question 2. Mr. Baldrige, do you believe the U.S. photovoltaic industry will be able to maintain its leadership in this technology with such limited Federal assistance or will we be forced to import yet another major energy source in the future?

Answer. I do not believe that major continued Federal investment in photovoltaic research is the key to maintaining our present leadership in photovoltaics and to reaching a substantial share of the world market. What is most needed now is private efforts to develop commercial applications of the technology and to do so in ways that are cost competitive with the production of Japanese or any other manufacturers. Beyond that is the traditional marketing effort that is needed.

Commercial adaption of proven technology is not something that the Government can do nearly as well as profit-motivated industry addressing a real marketing opportunity. The Government, and specifically the Commerce Department, can assist private firms in overseas marketing of photovoltaics through commercial intelligence, U.S. trade shows and the like.

RESPONSE OF MR. BALDRIGE TO A WRITTEN QUESTION SUBMITTED BY SENATOR DANFORTH

Question. If this reorganization takes place, virtually all of the Federal programs related to nuclear power—including both civilian and military research and development—will be your responsibility, as well as your current assignment of promoting nuclear sales overseas. Yours will be a key voice in the Administration on the subject of nuclear energy. In this context, how would you describe your thinking about the problem of nuclear proliferation, especially in the Third World?

Answer. Yours is a thoughtful question that deserves a careful reply. First, let me address the concern that Commerce could find itself in a conflict of interest situation, and then address my thinking on nuclear non-proliferation in general.

Regarding a potential conflict of interest—Yes, in a way there are conflicting interests to be resolved between the objective pf promoting exports and strengthening the U.S. competitive position in world markets versus prudent consideration of policy and case decisions in the non-proliferation area.

However, conflicting views and objective are common to all major public policy issues. It is not generally desirable to structure Federal departments so that they are concerned with only one side of a debate. We must be open to all the facts and listen to all views and then make a balanced judgment. Our judgments in this field will, of course, have the benefit of information presented by other departments and the interested public. The decisions will not be made behind closed doors within Commerce.

I might also point out that Commerce is long familiar with this type of conflicting objectives, specifically in the international trade field. We have responsibility both to promote exports and, at the same time, top control the export of selected goods and technology where there is a national security concern or other cause to exercise restraint. We can objectively extend this balancing act to take in nuclear exports.

Regarding my views on the problem of nuclear proliferation: I share the concern, felt by so many responsible persons, about the spread of nuclear weaponry—especially to nations that may lack the political stability, traditional values, and technological sophistication to be responsible nuclear partners. The provisions of our own laws as well as international agreements aimed at curbing proliferation should be vigorously applied and enforced.

In order for us to implememnt non-proliferation objectives effectively, we have to be a participant in the process of providing peaceful nuclear technology in those selected circumstances that meet all the criteria. We should not be a supplier of nuclear goods to any nation that does not fully meet the test, and we should exert all possible leverage to prevent anyone else from supplying nuclear goods on demand from non-responsible buyers.

RESPONSES OF MR. BALDRIGE TO WRITTEN QUESTIONS SUBMITTED BY SENATOR EAGLETON

Question 1. On May 24, 1982, Edwin Meese announced that S. 2562, if enacted, would result in direct savings of over $1 billion and a reduction of 3,000 Federal positions in the first fiscal year. Senator McClure in a floor statement on May 27, 1982 said this estimate of 3,000 jobs lost was a "serious error," and that in fact S. 2562 would affect a maximum of 100 to 150 positions. What is your estimate of the number of positions affected? If Senator McClure is correct about the effect on personnel, then isn't the Meese estimate of cost savings ($1 billion in the first fiscal year) also excessive?

Answer. Discussions of potential savings from the President's overall energy initiatives have suffered from confusion of the various, distinct analyses that have been made by the Administration, Congress and others. Separate projections have been made to contrast staffing vs. cost savings, budget vs. reorganization savings, and administrative vs. program savings, as well as various combinations of these. Each of these ways of looking at savings yields different results and care must be taken in comparing them.

In his letter of May 25, 1982, to Senator McClure, Joseph Wright, Deputy Director of OMB, projected possible manpower savings equivalent to 3,834 full-time positions in fiscal year 1983, compared to fiscal year 1982 authorized levels, resulting from the combined effect of the budget proposals and the reorganization. This seems a reasonable goal. As described in the following question, we have set an initial goal of reducing support staffing by approximately 652 position, with further reduction targets to be established. These 652 positions are a part of the 3,834 referred to above.

Concerning the second part of the question, Senator McClure was concerned only with staff savings associated with reorganization alone. Mr. Meese, in contrast, apparently projected cost savings from all aspects of the President's energy initiatives, including both budget and reorganization savings from staffing and program reductions and from management improvements. These are not comparable figures and should not be expected to match.

Question 2. The GAO was requested by Senators Roth and Percy and Representatives Dingell, Ottinger and Sharp to evaluate the savings due to the proposed DOE reorganization. Although that study won't be released until mid-July, the GAO staff conducting the study briefed the staff of the House Fossil Energy Subcommittee on their draft report. The GAO told the Subcommittee staff that the majority of the savings claimed to result from this bill was due to budget cuts, not from the reorganization itself. Can you comment on the nature of the estimated savings from S. 2562 due to the reorganization alone?

Answer. Following passage of the Federal Energy Reorganization Act, an intensive management improvement program will be instituted with a goal of achieving at least $80 million per year in savings, for a three year total of $240 million. Over the longer-term, additional savings will be identified that could cumulatively total as much as $750 million.

Our purpose is to manage the new structure in the most effective and economical manner possible, and our program will therefore include improvements that are totally dependent upon the reorganization, as well as ones that build upon the President's budget proposals. Among our projects planned for the near-term will be the consolidation of the general staff functions of the two Departments, which we expect will save 427 positions and $18 million annually. This measure is clearly dependent upon the reorganization.

We expect to reduce support staffing by 225 positions, with annual savings of $10 million, as a result of reduced support needs caused by program budget reductions. This measure is dependent upon implementation of the President's budget, but the economies-of-scale resulting from the reorganization will aid us in this effort.

Our longer-term savings goals are heavily dependent upon the reorganization. Most of the areas we will be examining concern the combined resources for the two Departments. We will be reviewing for example, the consolidation and integration of information processing activities and the administrative and program management improvements possible in such areas as data-gathering and analysis.

Question 3. The proposed reorganization would give the Secretary of Commerce massive new responsibilities, especially in the areas of international energy matters and critical defense programs. Considering the extreme difficulties facing basic industries such as steel, automobiles, aircraft manufactures, etc. in competing in the world markets, is this an appropriate time to increase the responsibilities for the Commerce Secretary.

Answer. We do not believe that the reorganization of energy functions will, as the question implies, overload the Secretary of Commerce with responsibilities. Indeed, given the fact that energy cost and availability have been major factors affecting the performance of basic industries, we believe that the combination of responsibilities can help improve Federal policy both with respect to energy and with respect to American industry overall. Though the difficulties of America's basic industries have many causes, the historical separation of energy policy from overall economic policy is one element that has compounded these difficulties—a flaw that the President's proposal is intended to remedy.

In terms of managerial responsibilities, the Secretary of Commerce will not be overloaded because he will be supported by two very senior officials directing the energy program: the proposed Deputy Secretaries for Defense Programs and for Energy. These officials will have substantially more statute and authority than counterpart officials now in DOE. Assisted by these two Deputy Secretaries, the Secretary of Commerce will establish the broad policy objectives and guidelines for energy programs, but implementation will be the work of the Deputy Secretaries.

It should also be noted that as the result of reorganization of the Department of Commerce during the last 18 months and the transfer from Commerce of some responsibilities (e.g., the transfer of the Maritime Administration to DOT), the number of major activities placing demands upon the Secretary's time has been reduced. Furthermore, much of the responsibility for day-to-day administration of the Department has been assigned by the Secretary to the Deputy Secretary of Commerce. Thus, Commerce has been structured to permit the Secretary to concentrate on issues of major policy importance, and we are confident that energy issues will find ample time on the Secretary's agenda.

Question 4. Question concerning S. 1503, a bill to give the President discretionary authority to allocate oil supplies in a severe shortage.

Answer. (This question has been referred to the Department of Energy for direct response to Senators Roth and Eagleton. See p. 100.)

Question 5.—The Synthetic Fuels Corporation has not yet committed a dime—in loans or guaranteees—although the Energy Department did make several large commitments prior to creation of Corporation.

It took President Reagan months to find members of the Board; the Corporation wasn't operational until September, and the last two spots stayed open until May, 1982.

Why has the nomination process taken so long?

Answer. I cannot comment directly on the length of time involved in the nomination of Directors for the Synthethic Fuels Corporation Board. However, the Office of Presidential Personnel has advised that the Chairman was nominated in June 1981. Forwarding these nominations to the Senate within five months of the start of the new Administration is not considered excessively lengthy, especially considering the extraordinary workload on the FBI at that time. The Senate confirmation process, however, did consume nearly three months, immediately after which each was appointed.

In the case of the two people most recently nominated, the delay has to do with trying to fulfill a commitment to satisfy regional interests in filling out the Board. Reaching consensus on both the substantive backgrounds desired and regional considerations did take some time.

Question 6. By folding DOE into Commerce, the reorganization proposes to eliminate the DOE Office of General Counsel and Inspector General. Are you counting on savings for abolishing such units? What is the proposed level of staffing which you contemplate?

Answer. FERA will result in the merger of the DOE legal and inspector general staffs with their counterpart activities in Commerce, so that the new Commerce structure will be supported by a single legal and a single inspector general organization. We anticipate savings to accrue in these areas as a result of economies of scale effects in those functional areas which are common to both Departments (e.g., FOIA/Privacy Act matters, personnel-related legal services, etc.). However, we do not believe that significant savings can be realized in the program support areas of these two staff elements except for those resulting directly from program budget reductions.

The proposed staffing levels for the legal and inspector general organizations are being developed in collaboration between the Commerce and Energy staffs. Except for the savings in the common functional areas, projected on the order of 5 to 10 percent, the new organizations will generally reflect existing staffing of both Departments.

Question 7.—Section 401(a) of S. 2562 has the Director of the Bureau of Energy Information report to the Secretary of Commerce "through the Under Secretary of Commerce for Economic Affairs." Will this denigrate the importance or visibility of the energy information effort?

Answer. Currently, the Administrator of the Energy Information Administration reports to the Secretary of Energy through the Under Secretary within DOE. Under S. 2562 the Director of the Bureau of Energy Information will be reporting to the Secretary of Commerce through an Under Secretary. Thus, in terms of formal reporting relationships, S. 2562 makes no change that could be inferred as downgrading the energy information activity.

We believe, in fact, that transferring energy information to Commerce will if anything enhance the activity since it will be organizationally placed side by side with the Bureaus of the Census, Economic Analysis, and Industrial Economics. As such it will become part of the government's central statistic collection and economic analysis activity and will benefit by the long established tradition of integrity enjoyed by statistical programs in this setting.

Question 8. The reorganization would place the energy information office in a Department that is already notorious for underfunding and failing to provide adequate support for informational activities. Doesn't this mean that the energy data functions would be (to quote a background analysis by the Congressional Research Service) "at a distinct disadvantage (in) competing with other priority data programs, compared to the current organization in which an entire independent administration carriers out these functions with a single focus?"

Answer. We believe that the premise of the question is incorrect. The last several years have been those most marked by reductions in program budgets. In fiscal year 1980 the appropriation for Census Bureau salaries and expenses was $52.1 million; for fiscal year 1983 the initial appropriation request was $64.1 million. Major swings in the budget of the Census Bureau have occurred in its appropriations for periodic census, but these swings are the result of the periodic increases and decreases in outlays associated with major censuses. The fiscal year 1980 appropriation for economic and statistical analysis, which includes the Bureau of Economic Analysis, the Bureau of Industrial Economics, and support staff was $17.9 million; the comparable figure initially requested for fiscal year 1983 was $32.6. Of course, at this time we cannot predict the final outcome of the fiscal year 1983 budget procedure, but we believe these figures do not support the claim that Commerce is "notorious" for underfunding its informational activities.

That point aside, it would be our intent to treat the energy information activity for budget purposes as a separate appropriation line item so that Congress could be assured that Commerce was not "trading off" resources for energy information to support other statistical and economic analysis activities.

Question 9. The proposed reorganization deletes the sentence in section 205(a)(1) of the DOE Organization Act which requires that the head of the energy information office "shall be a person who, by reason of professional background and experience, is specially qualified to manage an energy information system." What is wrong with requiring special qualification in the statute? Does the Reorganization Bill intend that a less qualified person be appointed?

Answer. No. Energy information would be placed within Commerce in that part of the Department that also manages the Bureau of the Census, the Bureau of Economic Analysis, and the Bureau of Industrial Economics. All of these organizations have a solid reputation of being managed by professionally competent people. We are unaware of any complaints alleging that Commerce has selected underqualified individuals to guide these organizations. The tasks of all these organizations, including energy information, make plain the qualifications necessary to provide good management of them.

Question 10. Under present law, the EIA is to focus on information "relevant to the adequacy of energy resources to meet demands in the near and longer term future." The proposed mandate for the new Bureau in the Reorganization Act doesn't distinguish between different time frames for assessing future need—a change that takes on greater importance in light of present budget proposals to cut back on EIA's ability to engage in long-range forecasting. Does the Reorganization Bill reflect a belief on the Administration's part that longer-range forecasting is unnecessary or otherwise too problematic?

Answer. Complex modeling and forecasting of the longer-term have been proposed for elimination from BEI/EIA's fiscal year 1983 budget. The uncertainties inherent in longer-term projections together with a reduced Federal role in the energy sector make the continued allocation of the resources required to conduct such efforts unnecessary. Also, longer-term economic projections which provide indications of long-term energy needs, are prepared by several other sources, including the Department of Commerce. The estimates from these sources will provide a range of possibilities on longer-term energy situations, much of the information being similar to that currently prepared in EIA. The Bureau would continue to satisfy energy information needs concerning issues requiring shorter-term analyses and projections. For the longer-term, analyses would focus on selected relevant issues only.

Question 11. GAO endorsed the creation of DOE in 1977 as a first step toward a solution of how to organize governmental energy functions. In February, 1981, President Reagan formed a Cabinet Council on Natural Resources and Environment to coordinate energy policy. About the only person in the government who wasn't involved was Secretary Baldrige. Now we get a legislative proposal which places the Energy Department in Commerce and gives the Commerce Secretary a vast new empire?

What have you learned in the past year to make you change your approach so radically and to convince you that GAO was incorrect?

Answer. The question implies that at some point earlier in this Administration we concluded that GAO was correct—i.e.—there should be a Department of Energy and Natural Resources. We have never taken this position. President Reagan pledged to dismantle the Department of Energy. In planning how to go about this, we considered a range of possibilities for the reassignment and continuation of those DOE functions which are essential Federal activities.

The GAO concept (as well as that of others) of joining energy and natural resource programs by merging the Departments of Interior and Energy was considered but, obviously, not selected. The DOE responsibilities do not and never have comprehended all Federal involvement in energy issues. Interior has the responsibility for those major Federal energy activities which are intimately associated with managing the public lands and the Outer Continental Shelf. They also have auxiliary responsibilities of providing geological surveys and expertise and coal mining technology.

The proposed reorganization accepts this arrangement of natural resources related aspects of the Federal energy role remaining with Interior. The proposal in fact, utilizes and builds on this arrangement by transferring to Interior those DoE functions which are mutally complementary with Interior programs—i.e. power marketing and coal mine research.

FERA departs from the concept of linking energy and natural resources in the respect that those major DoE functions which are integral to the U.S. industrial economy, producer/consumer economics, and high technology are assigned to Commerce where there are many mutually complementary responsibilities and capabilities to be exploited as noted elsewhere.

Incidentally, the Cabinet Council on Natural Resources and Environment, which now includes Secretary Baldrige, was not formed, as you say, "to coordinate energy policy". Its focus is much broader than this and includes environmental issues, water resources, minerals, recreation and other matters as well as energy resource issues.

Question 12. Do you predict any potential disruption in the operation of energy programs during the reorganization process? If so, how long will the disruption last, and which programs are likely to be affected the most?

Answer Undeniably, major reorganizations cause a degree of disruption to both the affected bureaucracy and to the public they serve.

However, proper planning and good communication can go a long way to minimize this problem. While the plan we proposed would significantly change what might be called the overhead and the "corporate" level, much of the operating programs will continue undisturbed. For example, the large bulk of personnel who are engaged in the R&D and related technological work throughout the nation will not be disturbed by the reorganization. Where the disruption factor is likely to be most noticeable—the staff overhead units—we anticipate a phasing plan so that the changes are accomplished in an orderly way with all interested parties kept fully informed. All phased transitions should be completed within a year. Operating programs, including those in the field, will experience little or no disruption and the transition can be affected in a very short time span.

Question 13. What assessment has been made of the impact that the budget cuts, possible repeal of energy tax credits, personnel reductions and reorganization will have on private sector efforts to carry on an aggressive solar energy implementation program?

Answer. The reorganization, per se, will have no effect on actions by the private sector in the solar energy field. The proposed organization will give fully adequate support to accomplishing the solar energy mission and objectives that results from on-going budget discussions.

Regarding the impact of overall Administration proposals in the soalr energy field let me make the following points concerning our underlying assumptions:

Solar energy is an important element in our national energy future. Its renewable characteristic and its relative freedom from environmental degradation makes it additionally attractive.

The technological state-of-the-art is sufficiently advanced that commercial adaptation is the principal remaining challenge.

Federal investment in selected R&D projects will continue, but the private sector is best able to do the competitive product design and improvement work which is needed.

Artificial stimulation of demand, as through tax credits, is disruptive of natural functioning of the market place and represents an artificial element in private decision-making.

Unnecessary Federal expenditures which overlap what private firms can do better, and Federal revenue loss through market distorting tax subsidies, complicate our efforts to restore the vitality and productivity of our economy. We must make prudent cuts in our expenditures and eliminate revenue losses where feasible in the interests of all citizens and taxpayers.

Question 14. The DOE Organization Act contains strict regulations designed to eliminate or minimize conflicts of interest, or the appearance of conflicts, by department employees. Why have all such provisions been omitted in the language of this reorganization bill?

Answer. The Department of Energy Organization Act was enacted on August 4, 1977. Subsequently, on October 26, 1978, the Ethics in Government Act of 1978 (the Ethics Act) was enacted. The only significant differences between the conflict of interest provisions contained in Part A of Title VI of the DOE Act and applicable government wide conflict of interest law are:

(1) The DOE Act requires the reporting of financial interest by "supervisory employees" with regard to "energy concerns" only, whereas the Ethics Act requires virtually all financial interests be reported;

(2) The Ethics Act requires DOE "supervisory employees" to report their financial interests in more detail than the DOE Act; and

(3) The DOE Act contains strict provisions prohibiting "supervisory employees", regardless of their specific duties, from having any financial interest in an "energy concern" whereas government wide conflicts law provides for a case by case review of the financial holdings of each individual to determine, in the context of the specific position held by that person, if there is a potential conflict of interest and whether divestiture should be required.

It is our opinion that, subsequent to enactment of the Ethics Act, government wide conflict of interest law contains more than ample provisions to ensure the integrity of Federal officials. In light of this, there does not appear to be any reason to single out "supervisory employees" of DOE for more stringent restrictions than those imposed on any other Federal official.

Question 15. Recently, the Federal Energy Regulatory Commission issued a notice of inquiry regarding the elimination of natural gas vintaging and the eventual raising of the price ceiling on old natural gas. This is the first step in proposing a rulemaking on the old gas-pricing issue. What is the Administration's position on this action?

Answer. The Administration recognizes that FERC has an obligation to investigate serious allegations of market distortions that may hinder the smooth transition to partial deregulation of natural gas by 1985 and to explore potential solutions. The elimination of vintaging and the establishment of new "just and reasonable" rates for old, flowing gas is one of the options which has been suggested as a means of alleviating potential problems. Accordingly, the Administration is awaiting the results of FERC's inquiry and has no opinion at this time as to which, if any, of the options would be appropriate. Indeed, as further indication of the tentative nature of FERC's action, its notice of inquiry clearly indicates that it has reached no legal conclusion about the extent of its authority to establish new rates or eliminate vintaging and specifically seeks public comment on this point as well.

Question 16. Under this reorganization proposal, FERC is to become a completely independent agency. Do you see a need to place stricter requirements on the rulemaking procedures at FERC which would make the Commission more attentive to the laws it is charged with upholding?

Answer. The Department of Commerce has no information or basis to conclude that FERC is inattentive to the laws it is charged with upholding. We are certainly aware of dissatisfaction with specific rulemaking or rulemaking-related activities such as those described in the preceding question. In such cases, the proper check is the normal Congressional oversight, appropriations and confirmation processes or, in some cases, a substantive amendment to the act establishing the particular program authority allegedly abused. As a matter of principle, however, we would not recommend that general rulemaking procedures be modified because of disagreement in isolated instances in the absence of a demonstrable pattern of inappropriate conduct by an agency or other compelling justification.

Question 17. Section 201 (a)46, (a)47, and (a)48 of the bill permit the Secretary of Commerce to exercise some power over the import and export of natural gas and the export of electricity.

And section 201(b) provides that "Secretary (of Commerce) may exercise a variety of powers now exercised by FERC," including rate-setting and other regulatory decisions about imported and exported power sources.

(a) What is the rationale for permitting the Commerce Secretary to displace FERC's present role over many of the day-to-day regulatory aspects of imported and exported power? Since the bill would appear to leave rate-setting and other regulations of domestic sources to FERC, isn't there a danger that our regulatory policy would become difurcated—with inconsistent policies and regulations being applied for example, to the transportation of domestic and imported natural gas, respectively—

(b) Doesn't making the assumption of FERC duties a matter of the Commerce Secretary's discretion directly undercut the sense in which FERC is "independent?" How can you say that an agency is independent when, on any given day, its authority can be taken away by an executive branch agency that may be dissatisfied with its regulation in controversial areas?

Answer. Section 201(b) is not intended to authorize the Secretary of Commerce to displace FERC in the day-to-day exercise of any regulatory powers under statutes which it now administers. It merely permits the Secretary to use certain administrative authorities such as imposing recordkeeping requirements in connection with his own authority under the Natural Gas Act or the Natural Gas Policy Act. The Secretary's authority under these Acts is the same as that of the Secretary of Energy who was granted precisely the same administrative authorities by the second sentence of Section 301(b) of the DOE Organization Act.

Question 18. Section 403(a) of the DOE Organization Act gives the Secretary of Energy and FERC, "the authority to propose rules, regulations and statements of policy of general applicability," with respect to functions within FERC's jurisdiction. Section 403(b) requires the Commission to consider and take final action on any proposal made by the Secretary in an "expeditious manner" in accordance with "reasonable time limits" which the Secretary may set.

Although S. 2562 is touted as returning FERC to the independent status of the old Federal Power Commission, Section 624 seems to increase the authority of the Secretary to intervene in FERC's rulemaking process.

What is intended by the differences between proposed section 624 and existing section 403? What is the necessity of this provision?

Answer. Sections 403 (a) and (b) are virtually identical to present Sections 624 (a) and (b). The only difference is that Section 403(a) does not specifically refer to FERC's authority to propose its own rules. This, however, is merely a drafting technique as FERC's authority to do so is contained in Title 5 (see sections 502(e) and 503(d)). The retention of this authority is essential.

If the Secretary of Commerce is to assume the lead role within the Executive branch for the formation and execution of energy policy, a mechanism must exist whereby he may be assured that policies which cannot be successfully implemented without FERC's cooperation are at least considered. Representatives of FERC have advised us that they continue to share our view, as they did during the preparation of this legislation, that the provision in no way compromises their independence.

RESPONSES OF MR. BALDRIGE TO WRITTEN QUESTIONS SUBMITTED BY SENATOR PERCY

Question 1. Please indicate how many staff positions will be eliminated as a *direct* result of the reorganization with a breakdown showing in which areas these reductions will occur. How many staff positions would be eliminated due to programmatic funding reductions if the President's proposed fiscal year 1983 budget were adopted?

Answer. Following the passage of the Federal Energy Reorganization Act, an intensive management improvement program will be instituted with a goal of achieving at least $80 million per year in savings, for a three year total of $240 million. Over the longer-term, additional savings will be identified that could cumulatively total as much as $750 million. Our initial goal for staff savings in 652 positions. Of these, 427 will result directly from the reorganization: Nine Executive Level positions with 18 associated staff, and Approximately 400 positions through consolidation of general staff areas, including administration, public affairs, and Congressional and legal services.

The remaining 225 positions will be saved through reduced support needs caused by program budget reductions. This measure is dependent upon implementation of the President's budget, but the economies-of-scale resulting from the reorganization will aid in the effort.

Our management improvement program will result in additional staff savings, but the number cannot yet be accurately forecast. We expect these savings to be in the areas of administrative systems and operations, information processing, and field operations, as well as improvements in complementary programs.

The 652 positions referred to above are a part of the reductions of 3,834 full-time equivalent positions which are reflected in the President's fiscal year 1983 budget compared to fiscal year 1982

Question 2. The reorganization calls for elimination of a number of current DOE offices e.g., the Office of Policy, the Assistant Secretary for International Affairs, etc. Will the personnel in these offices be RIFed in entirety or will they first be combined with current Commerce personnel in the offices taking over these functions and then go through a RIF of both Commerce and Energy personnel?

Answer. The fiscal 1983 budget proposal for the Department of Energy includes program and staffing reductions in several areas, including those specifically cited in the question. These reductions are not mandated by the Federal Energy Reorganization Act and, to the extent they are not dependent upon the reorganization, will be implemented when budget deliberations are completed.

As we implement FERA, our specific personnel plans, developed to reflect the final fiscal year 1983 budget decisions, will honor all employees' rights fully, including those relating to transfers of function. Department of Energy employees conducting functions that are transferred to an existing Commerce office will have competitive rights within that office. The planned merger of DOE's Inspector General with that of Commerce is as case in point.

The functions of the Office of Policy and the Assistant Secretary for International Affairs, in contrast, will not be transferred to an existing Commerce office.

These functions will be assigned to the Deputy Secretary for Energy, under the supervision of the Associate Deputy Secretary for Energy Policy and Research. Employees in these functions will not be combined with current Commerce personnel and will have no competitive rights outside their organization.

Question 3. Under the new organization, who will be responsible for the environment work currently done under the Assistant Secretary for Environmental Protection, Safety and Emergency Preparedness? How many staff positions will be assigned to carry out these responsibilities?

Answer. The environmental work of DOE will be continued as part of the responsibility of the Assistant Secretary for Energy Technology, Conservation and Alternate Sources.

The number of positions to be assigned to environmental work is currently currently under review as part of the budget process. It is, as of now, unresolved. Whatever number of Federal employees is assigned to environmental functions it should be kept in mind that an additional number of contractor personnel will be engaged in this objective at the national labs.

Question 4. Under the new organization, who will be responsible for the activities currently assigned to the Office of Consumer Affairs? How many staff positions will be asigned to carry out these responsibilities?

Answer. We are presently conducting an in-depth review of the administrative and support activities of the Departments of Commerce and Energy in order to determine which should be consolidated. Although that study has not been completed, consumer affairs is the type of activity that normally lends itself to consolidation. Furthermore, the fiscal year 1983 budget proposal for the Department of Energy includes no resources for consumer affairs.

We expect that the Department of Commerce's Office of Consumer Affairs will be assigned these responsibilities. This will permit energy-related consumer concerns to be integrated with a broader range of consumer interests to the benefit of each. The fiscal year 1983 budget proposal for this office is for three full-time equivalent positions.

Question 5. Under the proposed reorganization plan, which office/division and how many staff positions would be assigned to the Office of Policy, Planning, and Analysis?

Answer. Under the President's proposal, the responsibilities currently assigned to DOE's Office of Policy, Planning and Analysis would be assigned to a staff reporting to the Associate Deputy Secretary for Energy Policy and Research, who would report in turn to the Deputy Secretary for Energy.

DOE's fiscal year 1983 budget request calls for a reduction in staff of the Office of Policy, Planning, and Analysis to ten personnel, but that fact should not be interpreted to indicate that reorganization will lead to inadequate staff support for energy policy activities. Many of the economic analysis activities of the Office of Policy, Planning, and Analysis complement similar activities now carried on in Commerce. Currently, DOE's policy cadre numbers about 120 employees; the comparable figure for Commerce, taking into account both its domestic and international economic policy activities, is about 325 employees. These could be drawn upon to support critical energy policy activities.

Furthermore, after reorganization, energy policy activities could also draw upon Commerce's Bureau of Economic Analysis and Bureau of Industrial Economics, which together have staffs approaching 600 personnel. In fact, both of these Commerce organizations have staff already working on energy industry issues.

Though details for the staffing of the energy policy activity have not yet been worked out, we believe there is no ground for concern that energy reorganization would result in inadequate professional staff support for the energy policy activity.

Question 6. Under the reorganization proposal, the alcohol fuels loan and loan guarantee program would be transferred to the Department of Agriculture while the Research and Development for renewables would remain with Commerce.

In view of all (of these) criticisms, would the Administration review and then modify this proposal in order to move the entire Office of Alcohol Fuels into the Office of the Assistant Secretary for Energy Technology, Conservation and Renewable Resources?

Answer. Our reasoning in assigning alchohol fuels loans and loan guarantees to the USDA, to be carried out through the Farmer's Home Administration, is that USDA has an established program and the necessary skills to operate a loan and loan guarantee program. They are also in contact with the relevant clientele groups. Neither the DOE nor Commerce Department has a comparable capability to oversee this activity.

. DOE/DOC and the relevant national labs, on the other hand, are well equipped to do research and development in the use of alcohol fuels. To the extent necessary, interagency coordination can link these activities.

If you wish to present further reasons for us to modify the proposal so that all alcohol fuels work is kept together in the same Department, we will be glad to work with you to consider the matter further.

Question 7. Question concerning RIF's and internal organizations through the end of fiscal year 1983.

Answer. (This question has been referred to the Department of Energy for direct response to Senators Roth and Percy. See p. 97.)

Question 8. Under the proposed reorganization plan, which office/division and how many staff positions would be assigned to carry out the responsibilities currently assigned to the Assistant Secretary for International Affairs?

Answer. Under the President's proposal the responsibilities of DOE's Assistant Secretary for International Affairs would be assigned to the Associate Deputy Secretary for Energy. Support would be provided by a small specialized staff reporting to the Associate Deputy Secretary.

DOE's fiscal year 1983 budget request calls for abolishing the Office of the Assistant Secretary for International Affairs. It is important to point out, however, that neither the budget request nor the reorganization plan calls for phasing out the international activities of DOE, which are recognized to be of critical importance.

With reorganization, Commerce management would assure that adequate and appropriate staff resources would be devoted to support the international affairs activity. As noted above, a small cadre of professionals would report directly to the Associate Deputy Secretary for Energy Policy and Research. Other support for international energy activities would be drawn from the organizations reporting to the Deputy Secretaries for Defense Programs and for Energy, a practice paralleling what is now done in DOE. These resources would be supplemented by drawing upon staff in Commerce's International Trade Administration (ITA). It should be noted that in contrast to the 50 personnel now in the Office of the Assistant Secretary for International Affairs, the staff of ITA totals approximately 2300, a reservoir of expertise than can certainly support many facets of international energy activities.

The central question is whether Commerce, after reorganization, would make sure that adequate resources were available to support fully the international energy activity. While staffing details have to be worked out, Commerce management has no hesitation in answering in the affirmative.

Question 9. Please indicate how many staff positions would be assigned to the following divisions in the new organization. (a) Assistant Secretary for Strategic Planning; (b) Associate Deputy Secretary for Energy Policy and Research; (c) Assistant Secretary for Energy Emergency Planning; (d) Assistant Secretary for Energy Technology, Conservation and Alternative Sources; (e) Assistant Secretary for Energy Research; (f) Assistant Secretary for Nuclear Energy; (g) Director of Military Applications; (h) Assistant Secretary for Nuclear Materials; (i) Assistant Secretary for Security Affairs; and (j) Director of Bureau of Energy Information.

Answer. The staffing levels for the new organization cannot be stated with certainty since the levels contained in the fiscal year 1983 budget proposal were based on a different concept from that reflected in the Federal Energy Reorganization Act and the levels are now subject to refinement. Further the staffing levels are subject to additional adjustment because of: (1) Provisions of Federal Energy Reorganization Act as enacted by the Congress. (2) Modifications which may be made to the fiscal year 1983 budget by the Congress. (3) Final disposition of resources as indicated in the Determination Order by the Office of Management and Budget. (4) Adjustments that might be made after reorganization to improve overall performance.

With the above limitations in mind, the following total FTEs have been identified for transfer to the listed offices from former DOE resources:

(a) Assistant Secretary for Strategic Planning	0
(b) Associate Deputy Secretary for Energy Policy and Research	10
(c) Assistant Secretary for Energy Emergency Planning	222
(d) Assistant Secretary for Energy Technology, Conservation and Alternative Sources	316
(e) Assistant Secretary for Energy Research	262
(f) Assistant Secretary for Nuclear Energy	394
(g) Director of Military Applications	....
(h) Assistant Secretary for Nuclear Materials	385
(i) Assistant Secretary for Security Affairs	....
(j) Director of Bureau of Energy Information	400

Responses of Mr. Baldrige to Written Questions Submitted by Senator Sasser

Question 1. Given the difficulty which the Department of Commerce has had in maintaining funding for well-established Census and other data-collection activities, I fear that energy information may suffer under the proposed reorganization plan. Won't energy data be disadvantaged in competing with those statistics programs currently undertaken by the Department of Commerce, considering the limited resources provided these activities?

Answer. Funding for energy information activities will not be jeopardized by competing with the statistical programs already in place within the Department of Commerce. We would intend for the Bureau of Energy Information to be a separate appropriation line item, a step permitting Congress to assure that trading off of funds among the statistical programs would not occur, except, of course, with Congressional approval.

Question 2. Question concerning funding of energy conservation programs.

Answer. (This question has been referred to the Department of Energy for direct response to Senators Roth and Sasser. See p. 101.)

Question 3. The Administration has made large funding cuts in renewable energy and in fossil fuel programs—photovoltaics, magnetahydrodynamics, wind energy and the like. Do you expect to advocate continued de-emphasis of these programs if they are transferred to the Department of Commerce? Do you believe that private industry will undertake the research cut from Federal programs?

Answer. I subscribe to the criteria developed by Jim Edwards and this Administration to determine what research in energy and energy-related technology should be done through Federal investment versus left to private enterprise. These criteria, as you know, relate to high risk, high cost and long term pay out for research to develop sources which have major potential. Private firms will pick up research work not meeting these criteria if they determine after preliminary review that the results are promising and potentially cost competitive. In short, research projects which meet the market test will survive and go forward.

Question 4. Questions concerning funding for States in the field of energy emergency preparedness.

Answer. (This question has been referred to the Department of Energy for direct response to Senators Roth and Sasser. See p. 101.)

RESPONSES OF MR. BALDRIGE TO WRITTEN QUESTIONS SUBMITTED BY SENATOR SCHMITT

Question 1. Since the Deputy Secretary of Commerce will act for the Secretary in his absence and since the Energy Committee is expected to have a right to review the nomination of the Deputy Secretary, is it not expected that the Sec. 301 deputy secretaries will report to the Secretary through the Deputy Secretary of Commerce?

Answer. The statutory duties of the Deputy Secretary of Commerce are (1) to act for the Secretary in his absence, and (2) perform such other duties as the Secretary may assign. Under this arrangement the present top program officers of the Department report directly to the Secretary or to the Deputy Secretary when he acts for the Secretary.

The proposed "Section 301" deputy secretaries will have the same relationship to the Secretary and to the Deputy Secretary of Commerce as do such present program officers as the Under Secretary for International Trade.

Question 2. I am concerned about the division of responsibilities between the three Deputy Secretaries. How will turf battles be decided? Won't the bill as presently constituted, institutionalize an unworkable formula for decision making? For what types of decisions will the deputy secretaries for defense and energy be able to go directly to the Secretary, by-passing the Deputy Secretary for Commerce?

Answer. The arrangement should be very workable. The Deputy Secretary of Commerce will have the same span of concerns as the Secretary and, therefore, there is no reason for him to become party to any turf battles. The relative responsibility of the deputy secretaries for defense and for energy should be sufficiently discrete that they are not likely to have turf battles. If they should disagree on a given issue and cannot work out a resolution, it is up to the Secretary to resolve the issue in a normal manner of any superior. Hypothetically, if he wished to do so, the Secretary could ask the Deputy Secretary of Commerce to review a matter at issue ("such other duties as assigned") and make a recommendation.

In regard to the last question, it follows that the section 301 deputy secretaries can and would go directly to the Secretary on any decision. They would not have to go through the Deputy Secretary of Commerce unless it happened that he was, at the time, acting as Secretary. In going direct, the section 301 deputies would not be "by-passing" the Deputy Secretary in the sense of abrogating the normal chain of command.

Question 3. In section 613 the Secretary of Commerce is prohibited from altering or consolidating any of the organizational units or components in title III. Won't this hinder accountability? Should we tie the Secretary's hands in this manner? Wouldn't a reversal of the presumption allowing the Secretary to alter, consolidate or eliminate any organization unless either the Senate or the House affirmatively acted to block such an attempt, be a more reasonable approach?

Answer. Section 613 could limit the Secretary's managerial discretion to a degree without really hindering the President or the Congress from holding him accountable. Many other elements more directly affect his overall ability to exercise independent discretion and to be accountable.

The alternative arrangement of permitting the Secretary to alter or consolidate units subject to overturn by either House would not greatly enlarge his discretionary control of organization. He would still have to engage in Congressional negotiations to assure that his plans are not blocked. Moreover, the suggested alternative would subject internal structure of a Department, where it is not prescribed by Congress, to be changed subject to a one-house legislative veto. The Administration does not favor this type of extra-constitutional device which is of doubtful, at best, legality.

Question 4. The legislation today is accompanied by a resolution that provides a 90-day review period for the Secretary and the Deputy Secretary of Commerce. This period seems excessive. Wouldn't a 20-day period provide a sufficient amount of time to review any nomination? Wouldn't a longer period unnecessarily tie the hands of an administration? Do any committees have any such lengthy review period for any nomination? Please specify.

Answer. This Congressional resolution relates solely to an internal housekeeping matter of the Congress, and we properly defer to the Congress on such matters. We would note, parenthetically, that a 90-day period does seem unnecessarily lengthy.

Question 5. I am concerned that the "walls" that this new bill creates between the defense and energy programs and between the Department and the new energy and defense programs will severely hinder the interchange that has proved so successful in the past. How can we ensure that the national labs will not be "captured" by one Deputy Secretary or another?

Answer. We are well aware of the synergism between defense and energy activities throughout the national lab networks and we are committed to preserving this important asset.

Steps can be taken to prevent the proposed organizational structure from creating a "wall" between defense and energy applications. Our plan is to have each Operations Office report to whichever of the new Deputy Secretaries is responsible for the predominant type of project it manages. By agreement the Operations Offices will continue to oversee work for the "other" Deputy Secretary's programs where this occurs. This will permit a continuation of work assignments at each lab.

One matter to guard against is the possible tendency in isolated cases to give lower priority to a matter sponsored by one Deputy Secretary but performed by a facility supervised by the other Deputy Secretary. Generally this seems unlikely. For one thing, each lab tends to be entrepreneurial and not apt to let any of its work be unattended. This is like the concept of multi-purpose science labs. In addition, scientists engaged in a given project often do not take a hierarchial view of their work so long as support continues.

Over time it may become advantageous to make adjustments in the placement of work in selected cases. However, this should be infrequent since we intend that the labs continue to be utilized as multi-purpose facilities capable of supporting a range of program objectives rather than being narrowly based facilities geared exclusively to a particular program mission.

For these dynamic reasons we do not foresee the labs being "captured" by one Deputy Secretary or another.

Question 6. Considering our dependence, domestically and militarily, on uncertain sources of many essential materials, shouldn't the Assistant Secretary for Strategic Planning be responsible for contingency planning if supplies are disrupted and monitoring the worldwide situation acting as focal point for staff work and policy formulation? What responsibilities will the Assistant Secretary have under the National Materials and Minerals Policy R&D Act of 1980 (Public Law 96-479)?

Answer. The Assistant Secretary for Strategic Planning will provide overall direction and coordination for Departmental activities relating to strategic resources (with the exception of energy resources.) The Assistant Secretary will also be responsible for the Department's relationships with other Departments, agencies, and committees with responsibilities in the area of strategic materials, including the Federal Emergency Management Agency and GSA, on the National Defense Stockpile, the NATO Industrial Planning Committee, the Emergency Mobilization Preparedness Board and the Cabinet Council on Natural Resources and the Environment.

The Assistant Secretary will be delegated the responsibilities of the Secretary under the National Materials and Minerals Policy R&D Act of 1980—for the conduct of studies and preparation of reports under Sec. 5(c) on industry needs for critical materials.

Question 7. Section 402 creates an Assistant Secretary for Strategic Planning with responsibilities for "strategic materials and industrial mobilization that were under the authority of DOC prior to the date of enactment of this Act . . ."

Why should this responsibility for energy emergency planning also not be under the authority of this Assistant Secretary?

Note: There is created in Section 302(c)(6) an Assistant Secretary for Energy Emergency Planning.

Answer. The energy emergency planning functions, assigned to the Assistance Secretary for Energy Emergency Planning, include responsibility for reducing U.S. vulnerability to energy supply interruptions, developing and carrying out emergency plans for energy contingencies, and establishing policy for and operation of the Strategic Petroleum Reserve and the Naval Petroleum Reserve.

The effective performance of these critical functions will require close coordination with all of the other energy functions in the Department, and particularly with those under the Deputy Secretary for Energy including energy policy and international functions. It also requires that the official in charge of energy emergency planning participate fully in the development of energy policies. It is therefore essential that these functions be assigned to an official who is a part of the energy organization of the Department.

Question 8. Section 203 transfers to the Department of Agriculture the DOE's responsibilities under the Biomass Energy and Alcohol Fuels Act of 1980. As I understand the proposed legislation, only a portion of the alcohol fuels research and demonstration activities will be transferred. Because the Department of Agriculture is often in a better position to use it, I would like you to review other activities, such as biomass conversion, that might also benefit by a transfer to the Department of Agriculture.

Could you review the DOE's current programs and report on the possibility of transferring other programs benefiting agriculture to the Agriculture Department?

Answer. The proposed legislation on energy reorganization calls for transferring the alcohol fuels demonstration and loan guarantee program to the Department of Agriculture. Under current law, Agriculture already has responsibility for financial assistance to biomass projects with an anticipated annual production capacity of less than 15 million gallons of ethanol (or equivalent). The Department of Energy handles financial assistance to projects involving production of 15 million gallons per year or more. The legislation merely combines these two programs under a single Department. This simplifies administrative handling of proposals and eliminates an essentialy artificial differentiation on the basis of production capacity. All research activities are proposed to remain with the energy programs and transferred to the Department of Commerce, along with other biomass-related research activities. This is fully in keeping with the intent to centralize basic research activities in a single agency, to ensure full coordiation of research efforts across technological lines. While having in common their agricultural bases, these technologies should continue to be closely linked to similar technologies in other areas, such as coal gasification and liquefaction. Biomass and alcohol fuel research is also closely linked to ongoing research relative to alternative fuels and to methanol and ethanol use in engines.

RESPONSES OF MR. BALDRIGE TO WRITTEN QUESTIONS SUBMITTED BY SENATOR STEVENS

Question 1. Could you elaborate on the organization of energy functions combined with business functions in other countries?

Answer. The 21 countries of the IEA provide a good representation of the developed free nations of the world. All of these countries treat energy as an important subject, although each is confronted with its own particular circumstances in terms of indigenous energy supply and relative levels of demand.

The following listing indicates the Ministry or Department charged with most energy functions. As you will note, a few besides us have a separate organization for energy (Denmark, Norway, and New Zealand). Most, however, combine energy functions with their industry and commerce functions In some cases, "Energy" appears in the title and in others it does not.

Germany—Minister of Economics; Australia—Minister for National Development and Energy; Austria—Minister for Trade, Commerce and Industry; Belgium—Minister of Economic Affairs; Canada—Minister of Energy, Mines and Resources; Denmark—Minister of Energy; Spain—Minister of Industry and Energy; Greece—Minister of Industry and Energy: Ireland—Minister of Industry and Energy; Italy—Minister of industry and Commerce; Japan—Minister of International Trade and Industry; Luxembourg—Minister of Transportation, Energy and Environment; Norway—Minister of Petroleum and Energy; New Zealand—Minister of Energy; Netherlands—Minister of Economic Affairs; Portugal—Minister of Industry, Energy and

Exports; United Kingdom—Secretary of State for Energy Department of Energy; Sweden—Minister of Industry; Switzerland—Chief, Department of Transportation, Communications and Energy; Turkey—Minister of Energy and Natural Resources; United States—Secretary of Energy.

Question 2. Secretary Baldrige, you have stated many times that by bringing energy to Commerce, Cabinet-level representation on energy policy issues will be maintained. How do you plan to handle energy policy issues within the mainstream of economic policymaking?

Answer. Currently, energy policy issues are dealt with through the Cabinet Council on Natural Resources and Environment. This is not a Cabinet Council that plays a principal and routine role in overall economic policymaking. Two other Cabinet Councils are much more heavily involved in general economic policy making: the Cabinet Council on Economic Affairs and the Cabinet Council on Commerce and Trade. The Secretary of Energy is not a member of the Cabinet Council on Economic Affairs; the Secretary of Commerce is. The Secretary of Commerce chairs the Cabinet Council on Commerce and Trade; the Secretary of Energy is a member of this Cabinet Council.

After energy reorganization, with energy policy responsibilities vested in the Secretary of Commerce, attention to energy policy issues would be channeled through, depending on the topic, the Cabinet Council on Economic Affairs or the Cabinet Council on Commerce and Trade. This change would assure that a broader economic perspective would be brought to bear on energy issues than is now the case.

Beyond this step, the very fact of lodging a wide range of energy responsibilities within Commerce would modify the nature of analytical and policy development work conducted on energy issues. The Department's management and professional staffs routinely deal with many general domestic and international economic questions. Concern for the economy overall and for the parts within it runs through the work of the Department; its perspective on economic matters is simply broader than that of the current Department of Energy. It follows that shifting energy to Commerce will change how energy issues are considered, injecting more general concerns into analyses and policy recommendations. This, too, will be a step towards handling energy issues within the mainstream of economic policymaking.

Question 3. What are the specific benefits of combining the international trade functions of DOE with those currently in Commerce?

Answer. Under the President's proposal the international energy policy and nonproliferation responsibilities now vested in DOE would be transferred to the Deputy Secretary of Energy within Commerce. A small specialized international staff would report to the Associate Deputy Secretary for Energy Policy and Research. This is how the transfer of international functions would be accomplished in a formal organization sense.

Once the functions were transferred, there would be many opportunities for collaboration and cross support, between the energy activities and Commerce's International Trade Administration (ITA), in the areas of energy trade promotion, export control, and the linking of international energy policy to international trade policy.

Close collaboration would lead to the following benefits:

Enhanced and more cost effective export promotion for energy-related products and technologies. DoC has extensive knowledge of foreign markets and engages in export promotion planning. However, effective government support for the private sector marketing of energy products abroad would benefit from technical backup. After reorganization, useful energy related technical backup will be "at home" within Commerce. Energy-related export opportunities often grow out of foreign decisions to invest in major projects (e.g., large scale expansions of a nation's electrical system). Through ITA's Foreign Commercial Service and its major projects division in Washington, critical information can be provided to potential U.S. bidders.

Strengthens support for international economic policy formulation. Neither international energy policy nor international trade and investment policy can be effectively fashioned alone. Yet in the past we have done just this: multilateral trade negotiations have followed a path independent from multilateral energy negotiations.

Consolidation should close this gap, permitting us to better determine how our international energy obligations and developments on the international energy front affect our trade objectives and international competitiveness, and vice versa.

Improves the handling of energy-related export control cases. Under the Export Administration Act and the Nuclear Non-Proliferation Act, Commerce administers export controls on commodities and technologies on the "Nuclear Referral List" that are not directly part of the nuclear fuel cycle, reactor, or fuel elements. These latter items are licensed by the Nuclear Regulatory Commission. Notwithstanding this division of responsibilities between Commerce and the NRC, Commerce's export control staff plays an important part in fulfillment of our non-proliferation objectives. Effective licensing of items or technologies ancillary to nuclear development is as important as the licensing of basic nuclear components.

Even though Commerce already works closely with DOE, NRC, DOD, State, and the intelligence community on export control cases, reorganization will give Commerce much more immediate and complete contact with DOE's nuclear technical staff. Streamlining case handling, yet subjecting cases to even more thorough technical review than is now possible by operating across departmental boundaries, should be the outcome.

Question 4. How do you see that economic and industry analysis and forecasting as well as data collection will be strengthened when the Energy Information Administration comes to Commerce?

Answer. The Energy Information Administration, DOE's core statistical and analysis agency, will be transferred to Commerce and report to the Secretary through the Under Secretary for Economic Affairs. It will be retitled the Bureau of Energy Information [BEI]. Currently, this function in DOE is headed by an Executive Level IV Administrator. Under FERA, the bureau of Energy Information will be headed by an Executive Level V Director. The change in title and level of the head do not reflect the importance attached to this function. The changes simply conform BEI to the statistical and economic analysis bureaus now existing within Commerce.

Reporting through the Under Secretary for Economic Affairs, BEI will be a major element in the organization which also contains the Bureau of the Census, the Bureau of Economic Analysis, the Bureau of Industrial Economics, the Office of the Chief Economist, and the Assistant Secretary for Productivity, Technology, and Innovation. Thus, energy information and analysis will be placed side by side with Commerce's basic macroeconomic, microeconomic, industry, business, and technology analysis units.

In the case of BEI, its managers would be interacting daily with others knowledgeable in the statistics and economics fields. Common and shared expertise should assure that BEI promptly becomes a full fledged participant in Commerce's activities in support of its mission in the energy and economic policy areas.

Benefits which can be anticipated from this consolidation include: Increased opportunities for sharing census and survey-taking expertise across Bureaus; economies in data gathering and processing; improved economic analyses and forecasts—as the result of closer working relationships with experts on energy data and analyses; improved planning for ITA's export promotion programs; better analyses of how policies affect business because of better information on the energy and non-energy activities of the major U.S. energy producing firms; and cost savings through economies in administrative and support activities, and through integration of large-scale ADP equipment. With appropriate software, cross-use and transfer of redundant hardware among the Bureaus may be possible, with significant savings or postponements in purchases of ADP systems a likelihood.

Question 5. How do you plan, Secretary Baldrige, to organize the current DOE field structure with particular regard to the labs and the operations offices?

Answer. One of the strengths in Federal energy organization over the years has been the management structure and system at the field level for R&D work. Recognizing the value of the existing arrangements we intend to preserve them upon their transfer to Commerce.

In terms of formal structure, each of the eight Operations Offices will report to either the Deputy Secretary for Defense Programs or the Deputy Secretary for Energy depending on whether the labs it oversees are predominantly engaged in defense or energy projects. Subject to final determinations this rule of thumb produces the following relationships for the Operations Offices.

Deputy Secretary for Defense Programs supervises the following Operations Offices: Albuquerque; Nevada; and Savannah River.

Deputy Secretary for Energy supervises the following Operations Offices: Chicago; Idaho; Oak Ridge; San Francisco; and Richland.

The contractor operated national labs and other facilities can also be characterized as predominantly engaged in either defense or energy missions. They will continue to be subject to contract administration by the same Operation Offices as is presently the case. Responsibility for technical program guidance for each lab will be vested in the two Deputy Secretaries, in keeping with their respective missions, to be carried out in detail by the applicable program Assistant Secretary.

This pattern will be very workable and, in fact, involves little change in day-to-day working relationships. The desirability of a few adjustments may emerge as part of the implementation process, but they should be minor in scope.

Question 6. What future do you see for this (conservation) alternative energy resource at the Department of Commerce?

Answer. This Administration considers conservation of energy to be an important part of our national energy planning. This is true whether energy programs are vested in a separate department or incorporated in the Department of Commerce as we propose

The proposed organization will give permanent attention to conservation functions at whatever program level is finally worked out with Congress in the appropriation process. Generally, as you know, we believe that the price mechanism is the most effective and direct means to restrain marginal consumption of energy rather than Federal intervention in the form of subsidy programs. The hard evidence to support this is increasingly clear.

In terms of technology advances which are aimed at energy conservation, we feel that private enterprise has the incentive and the knowledge to do much of what is required. We will foster this through such means as patent policy and technology dissemination functions of Commerce. In addition, there will continue to be conservation R&D projects which meet the test of warranting direct Federal investment. These will continue to be pursued aggressively under Commerce direction.

Question 7. What future do you foresee for solar energy programs at the Department of Commerce after reorganization? Nuclear fusion?

Answer. The future for these programs at the Department of Commerce will be the same as they would be under DOE. The amount of funding to be devoted to both of these activities and others is, as yet, unresolved.

This Administration, as I indicated at the recent hearings, feels that we already know most of the technology required in the solar energy field. Profit-motivated private firms can and should proceed to reach the markets with commercial adaptations of the technology. Commerce can assist in this, especially to the extent that world markets are involved.

Nuclear fusion is a very long-term, high expense venture which is unlikely to attract sufficient private investment capital. In order to keep this high potential long range, option alive, direct Federal investment will be necessary for some time. This is true whether the program is in DOE or DOC.

Question 8. The existing DOE has given little or no policy guidance in this (project financing for Alaska gas pipeline) area. Do you foresee a role for a reorganized energy program in helping to deliver these resources?

Answer. As Secretary of Commerce and as a businessman I may have a perspective on large scale investment policy and capital markets that will be useful to the financing of the Alaska natural gas pipeline project. I know that the issue is complex and that it involves regulatory and permitting issues not directly within my jurisdiction or that of DOE. Nevertheless, I will see that a fresh look is taken at the problem of financing the pipeline and will bring to bear the analytic and advocacy capabilities of the Department as appropriate. In this connection, I will be pleased to hear your views more fully when it becomes timely.

Question 9. What cost savings efficiencies do you foresee as a result of the FERA proposal in such areas of management improvements, and combining current DOC/DOE program areas?

Answer. Our preliminary review indicates that we will be able to realize savings of at least $80 million a year over a three-year period through the institution of an intensive management improvement program. Our initial goal is to save 652 positions, 427 of which are directly related to the reorganization:

Nine Executive level positions and associated staff of 18. Approximately 400 positions through the consolidation of general staff activities, including administration, public affairs, and congressional and legal areas.

The remaining 225 positions will be saved through reduced support needs caused by program budget reductions. This measure is dependent upon implementation of the President's budget, but the economies of scale resulting from the reorganization will aid this effort.

Question 10. Isn't it true that the Congressional budget figures under consideration reflect dollar figures which assume a continuation of energy programs at near fiscal year 1983 levels? Doesn't this assure a continuation of DOE and an implicit rejection of the reorganization proposal?

Answer. The budget figures do suggest a continuation of energy programs, but this perception is not contrary to the goals and objectives of FERA. One of the major reasons for incorporating the DOE programs into Commerce is to fully integrate National energy policy and program activities with the economic programs of the Federal Government. Regardless of the level of our energy program, we believe that this facet of a combined Commerce/Energy organization will ensure full and proper treatment of the Nation's economic problems by addressing all industry sectors, including energy. With Commerce's expertise in data gathering and analysis, economic policy development, and industrial and trade promotion activities, the inclusion of energy policy and energy-related industries in the Department's responsibilities serve to bring the marketplace's power fully upon the Administration's economic recovery program.

Question 11. Will the basic objectives of the Nuclear Non-Proliferation Act and current functional responsibilities be altered as a result of the FERA reorganization?

Answer. FERA will not affect the policy or objectives of the Nuclear Non-Proliferation Act. Moreover, most of the machinery for non-proliferation, as prescribed by the NNPA, will also not be altered. Specifically, the responsibilities now assigned to the Nuclear Regulatory Commission, State Department, Commerce Department, and others will remain intact and they will continue to follow established procedures. The only change is that the functions now assigned to the Department of Energy will be transferred to the Department of Commerce.

The DOE non-proleration responsibilities to be transferred to Commerce are: Developing and implementing interagency non-proliferation policy; providing technical assistance to State Department in negotiating Agreements for Cooperation; making U.S. Government determinations and authorizing, as appropriate, "subsequent arrangement" requests; providing technical and policy back-up for U.S. support to International Atomic Energy Agency; providing technical and policy advice regarding sensitive countries, international safeguards, non-proliferation implications of advance nuclear technologies; authorizing international nuclear technology transfer (810 Procedure); reviewing and commenting on export applications on DOC and NRC-controlled items and technology; and managing an intelligence and data collection program related to non-proliferation.

We will continue the practice, now employed by DOE, of utilizing the technical nuclear expertise available in the nuclear energy and nuclear weapons programs. Through those offices, cases of unusual technical complexity can also be referred to the appropriate national labs for expert analysis and advice.

All of the foregoing non-proliferation responsibilities will be transferred to DOC where they will have improved access to and a close mutual supporting relationship with, non-proliferation responsibilities already in DOC. Commerce already has responsibility to consider and act on export license requests for nuclear-related equipment, materials and technology on the controlled list (i.e., items other than reactors and fuel which are licensed by NRC).

Question 12. Statistics show that Alaska may contain up to 50 percent of all known coal reserves in the United States. There are a number of recent market studies and analyses that demonstrate Alaska's comparative advantage in transportation costs in exportation of that resource to "Pacific Rim" countries. Despite these encouraging circumstances, Federal land, transportation, and environmental regulation is viewed as a significant impediment to development of this resource. What role do you see this reorganization playing in helping to streamline development of Federal and state lands for production and delivery of this resource.

Answer. This reorganization should have a very positive effect in helping to streamline development of Federal and state lands for the production and delivery of all energy resources. Pursuant to Public Law 97-100 (fiscal year 1982 Interior and Related Agencies Appropriations Act) the responsibilities for energy leasing have been returned to the Department of the Interior (DOI). The proposed legislation transfer DOI's minor remaining leasing functions as well as its coal mining research and development activities to DoI. Thus this legislation would consolidate coal and other resource management functions in the department primarily responsible for the stewardship, preservation, and development of the Nation's natural resources. It will collect within one agency the interrelated tasks of coal reserves evaluation, development and leasing. Such a consolidation should speed up activities related to the development of all the Nation's energy resources including Alaskan coal reserves.

I should also note that my current responsibilities include chairmanship of the interagency task force on coal export.

Question 13. The Trans-Alaskan Oil Pipeline was completed in 1977. Until creation of FERC, oil pipeline tariffs were governed by the ICC. A methodology was understood and tariffs were set regularly. However, we are now in 1982 with no end in sight to FERC consideration of a methodology to establish a Trans-Alaska Pipeline tariff. There is a substantial possibility that it will be the end of this decade before a tariff is even established on APS if one ever is.

The uncertainty created by glacial FERC consideration is squelching development of transportation systems in Alaska and the lower 48. Do you see this reorganization as instrumental in resolution of this problem at FERC? Is legislation needed to assist the new FERC in ratemaking on oil and gas pipelines?

Answer. The reorganization would not itself directly affect FERC's consideration of the Trans-Alaska Oil Pipeline case because it would not change either the nature of the regulatory task or the legal standards under which that task must be performed. However, there are two legislative changes that would help to expedite conclusion of the TAPS case. The first is deregulation of those pipelines that confront effective competition, permitting FERC to concentrate its efforts on the relatively few pipelines which have a natural monopoly and for which regulation is needed. The second change is to establish legislative standards for oil pipeline regulation that take account of the industry's special characteristics and its history of regulation by the Interstate Commerce Commission.

Question 14. Do you see a role for Arctic policy in reorganization of DOE? Specifically, Senator Murkowski's legislation S. 1562, regarding Arctic research policy coordination provides an excellent vehicle for realizing the objective of streamlined oil and gas environmental permitting. Wouldn't this legislation assist your efforts to reorganize energy programs into an effective system?

Answer. The GAO report that Alaskan oil and gas development is being hampered by poor coordination between Arctic research and permitting activities may well be correct. The proposed reorganization could help to some degree. For example, the energy reorganization would bring together in the same department two major areas of interest which are integral with Arctic research and with the development of Alaska's outer continental shelf and onshore oil and gas resources as well as coal resources. These interests are (1) the DOE's fundamental concern with securing our energy future through development of indigenous energy sources and (2) DoC's responsibility and capability, vested in the National Oceanic and Atmospheric Administration, for performing research relevant to the Arctic marine environment.

This convergence of interests would help narrow the range of interagency coordination needed to assure a coherent Federal presence in Arctic research. Certainly the NOAA capability could be more closely integrated with current DOE research in Arctic ecology. FERA is thus compatible with the objectives which underlie Senator Murkowski's legislation (S. 1562). On the other hand, the transfer of DOE programs to Commerce and elsewhere, the central purpose of FERA, would have only a collateral effect on the specific objectives of S. 1562.

DEPARTMENT OF ENERGY RESPONSES TO WRITTEN QUESTIONS

Responses of Mr. Edwards to Written Questions Submitted by Senator Eagleton

Question 1. The Department of Energy Organization Act transferred to the Secretary of Energy authority under the Natural Gas Act to approve imports and exports of natural gas. (*a*) What is the position of the Administration on where that authority should go—should it go to the Secretary of Commerce or should it go to the FERC? (*b*) If the authority were to go to the Secretary of Commerce, should the Secretary have the authority to delegate it to the FERC as does the Secretary of Energy under existing law? (*c*) What is the rationale for transferring the authority to the Department of Commerce, which will not have any particular expertise in the natural gas area, rather than transferring the export/import authority to FERC? (*d*) If the authority were to go to the Secretary of Commerce, to whom would it be delegated within the Department?

Answer. Under the current DOE Organization Act, the Secretary of Energy has statutory authority to regulate imports or exports of natural gas. Such regulation is specifically excluded from FERC's jurisdiction. The Secretary of Energy has statutory authority to delegate import and export functions to FERC, and has delegated to FERC authority over site specific issues, particularly those relating to the construction and operation of particular facilities and the point of importation.

FERA has retained this same basic structure by granting the Secretary of Commerce the authority to regulate imports or exports of natural gas, and excluding this authority from the jurisdiction of FERC. As in the DOE Organization Act, FERA provides that the Secretary of Commerce may assign certain of those import or export functions to FERC. Under section 612(b) of FERA, this assignment may occur with the consent of the Commission and following public notice.

It is our judgment that energy policy and agreements relating to the import and export of natural gas should remain in the Executive Branch in a cabinet department because these matters impact on national security and foreign policy. The expertise needed to handle this issue will be found in the DOE personnel who will follow their programs to the Department of Commerce.

Within the Department, responsibility for imports and exports of natural gas will be under the jurisdiction of the Deputy Secretary for Energy, most probably in the Office of the Associate Deputy Secretary for Energy Policy and Research.

Question 2. Section 405 of the Department of Energy Organization Act specifically provides the Secretary of Energy authority to intervene as a matter of right, or otherwise participate, in any proceeding before the FERC. What is the position of the Administration on retaining that provision? Why?

Answer. The Administration has retained this provision, which is found at section 622 of FERA.

Chief energy policy decisions must be formulated by a cabinet department. In order to assure that Administration policy is carried out in all parts of the Government, it is imperative that DOC be granted the authority to intervene and participate in any proceeding before the Commission so that it may express the Department's position on important matters affecting energy policy. This authority will become even more important when FERC becomes fully independent.

Question 3. Section 407 of the Department of Energy Organization Act grants FERC authority to request information from the DOE, or other Federal agencies, to provide information which the Commission determines is necessary to carry out its responsibilities. What is the position of the Administration on retaining that provision? Why?

Answer. Section 504 of FERA provides, "Except as otherwise limited by law, each Federal agency shall provide to the Commission, upon request, information in its possession that the Commission determines is necessary to discharge its responsibilities under this title."

This provision is substantially identical to § 407(a) of the DOE Organization Act (42 U.S.C. § 7177(a)).

The Administration supports this provision since it will help ensure that FERC obtains the information it needs to perform its statutory responsibilities while minimizing the possibility of unneccessary or duplicative reporting requests being imposed on the private sector. More particularly, the provision enables the FERC to obtain from the Bureau of Energy Information the statistical and information support that it would otherwise have to create for itself at substantial additional cost. This provision is even more important under FERA than it was previously in light of FERC's new status as a totally independent regulatory agency rather than a component of the DOE.

Question 4. Section 403(b) of the Department of Energy Organization Act grants the Secretary of Energy authority to establish time limits for the completion of action by the FERC on any rule, regulation or statement of general applicability proposed by the Secretary. What is the position of the Administration on retaining that provision? Why?

Answer. Sections 403 (a) and (b) are virtually identical to Section 624 (a) and (b) of S. 2562. The only difference is that Section 403(a) does not specifically refer to FERC's authority to propose its own rules. This, however, is merely a drafting technique as FERC's authority to do so is contained in Title 5 (see sections 502(e) and 503(d)) of S. 2562. The retention of this authority is essential.

If the Secretary of Commerce is to assume the lead role within the Executive branch for the formulation and execution of energy policy, a mechanism must exist whereby he may be assured that policies which cannot be successfully implemented without FERC's cooperation are at least considered. Representatives of FERC have advised us that they continue to share our view, as they did during the preparation of this legislation, that the provision in no way compromises their independence.

Question 5. Section 404 of the Department of Energy Organization Act grants the FERC authority to request referral, and to make recommendations for action, of certain rulemaking proceedings proposed by the Secretary of Energy. What is the position of the Administration on retaining that provision? Why?

Answer. As an independent regulatory agency, FERC will be entitled to the same rights and privileges as other independent regulatory agencies. These rights include the right to provide comment on proposed Commerce rulemakings and to suggest modifications to Commerce proposals. While FERC is contained within the Department of Energy, there is a justification for providing it with a special additional role in formulating Department of Energy regulations. This justification ceases to exist when FERC is not part of a cabinet-level department.

Question 6. Sections 401 and 403 of the Natural Gas Policy Act require the Secretary of Energy to establish a curtailment priority for agricultural users of natural gas. Once established, the rule may be amended from time to time. The FERC, in turn, implements that curtailment priority. What is the position of the Administration on retaining the Secretary's authority to determine which agricultural users of natural gas qualify as essential agricultural users? Why?

Question 7. Sections 402 and 403 of the Natural Gas Policy Act require the Secretary of Energy to establish a curtailment priority for essentail industrial process and feedstock users of natural gas. Once established, the rule may be amended from time to time. The FERC, in turn, implements that curtailment priority. What is the position of the Administration on retaining the Secretary's authority to determine which process and feedstock users of natural gas under the rule? Why?

Answers to 6 and 7. S. 2562 provides that the Secretary of Commerce shall be responsible for establishing and reviewing curtailment priorities of natural gas under the proposed reorganization of energy functions. Thus, FERA preserves the DOE Organization Act structure of placing this authority in a cabinet-level department. Establishing energy curtailment priorities is an important policy function integrally related to how the entire economy operates during periods of energy shortages. Separating this policy function from other Commerce Department energy activities would undermine the basis for selecting Commerce to hose energy function, namely that it is sound policy to analyze energy and other business activities as related components of the economy.

Question 8. Section 403(b) of the Natural Gas Policy Act requires the FERC to implement the natural gas curtailment priorities established by the Secretary of Energy. What is the Administration's position on retaining that requirement? Why? Where is it addressed in S. 2562?

Answer. Section 503(a)(2) of S. 2562 vests in FERC the responsibility to implement natural gas curtailment priorities established by the Secretary of Commerce. This parallels the present structure wherein FERC implements curtailment priorities established by the Secretary of Energy. Since FERC already possesses the expertise and experience to approve individual curtailment plans and make necessary adjustments, it is reasonable for FERC to continue performing that task.

Question 9. Which office within the Department of Commerce will have responsibility for each of the program areas now administered by the Office of the Assistant Secretary of Energy for International Affairs? Please be specific about each of the programs (IEA, IAEA, NEA, NATO, intelligence, international energy markets, etc.).

Answer. This question has been referred to the Department of Commerce for direct response to Senators Roth and Eagleton.

Question 10. In the case of each paragraph and subparagraph of Section 501 of the DOE Reorganization Act, please state. (a) Whether and to what extent a counterpart or similar provision is contained in S. 2562, and, if so, give its location and text. (b) In each instance in which any paragraph or subparagraph of Section 501 has no counterpart in S. 2562, state in detail the reasons claimed to justify the omission or modification.

Answer. Section 501 of the Department of Energy Organization Act establishes specialized procedural requirements for the Department of Energy's rulemakings. This section has no counterpart in S. 2562 for the following principal reasons:

First, the Administrative Procedure Act establishes uniform procedural requirements for rulemakings (and other administrative activities) for the goverment as a whole. This procedural uniformity is generally viewed as desirable—as Congress has recognized in enacting laws governing procedural and administrative questions such as the Administrative Procedure Act, the Privacy Act, the Freedom of Information Act, the Federal Advisory Committee Act and the like. There is no sound reason for imposing any specialized requirments on rulemaking involving the energy function.

Second, the requirements of section 501 grew mostly out of the Federal Energy Administration and its predecessors' economic regulatory activity under the Emergency Petroleum Allocation Act (EPAA). That statute has expired and the Administration does not propose to repeat the country's unhappy experience with that type of regulatory program. Accordingly, whatever need for specific procedural requirements that was perceived to have been necessary in connection with the EPAA's comprehensive regulation of petroleum markets no longer exists. Because the premise for these specialized requirements is gone, the requirements should not be preserved.

RESPONSES OF MR. EDWARDS TO WRITTEN QUESTIONS SUBMITTED BY SENATOR COHEN

Question 1. Mr. Edwards, in the event that the problems in the Middle East cause a major reduction in U.S. oil imports for whatever reason, in the next few weeks, this sudden and unanticipated disruption in oil shipments will lead to a steep run-up in world oil prices and cause severe shortages of gasoline immediately and heating oil this coming winter.

How would the market respond in time to prevent serious damage to states highly dependent on tourism during the summer months for their economic base? Maine, as you may know, is one of these states.

If this shortage were to continue for several months, would the Administration take any action to assure residents of oil-dependent states that there would be sufficient supplies during the winter?

Since the reorganization proposal calls for no coordinated response to any oil supply disruption other than the strategic petroleum reserve, how would the new department ensure that adequate supplies were available?

Answer. The Iran/Iraq hostilities came at a time when the world oil market is soft. There is no near-term threat to U.S. oil supplies since we import virtually no oil from either country. Therefore, we do not anticipate that the problems posed in the question will occur.

Naturally, in the event of a serious disruption of energy supplies, it is entirely possible that price increases will occur. However, that is to be expected from the normal workings of the marketplace, and it is essential in order to convey the proper signals to energy producers, distributors, and consumers. Only through this price mechanism will consumers and suppliers of energy products have the incentive to conserve and make fuel available where it is most needed throughout the Nation, a task which the private sector is far more qualified and experienced at performing than is the government.

Question 2. When does the Administration plan to develop a plan for drawing down supplies from the Strategic Petroleum Reserve?

Answer. Such a plan already exists. The current SPR Distribution Plan, which became effective November 15, 1979, following Congressional review, details alternative ways to draw down and distribute SPR oil, through price competition, or at a controlled price, either within or outside of regulatory programs.

This plan allows the President to draw down the SPR to mitigate severe supply interruptions or fulfill our International Energy Program obligations. Such a plan is not for small-scale or short-lived interruptions where private stocks or demand restraint can offset the problem.

We feel it neither practicable nor desirable to prepare in advance an implementation plan with specific predetermined plans for rate, amount, timing of drawdown and method of oil distribution. Rather, consistent with the current SPR Distribution Plan, any implementation plan should permit maximum flexibility for SPR use in order to deal with all kinds of disruptions. Also, since it is unlikely that we will know the length and severity of a disruption at the outset, rigid plans to drawdown and distribute the SPR oil make little sense.

RESPONSES OF MR. EDWARDS AND MR. BALDRIGE TO WRITTEN QUESTIONS SUBMITTED BY SENATOR PERCY

(All questions except Question 7 have been referred to the Department of Commerce for direct response to Senators Roth and Percy. See p. 84.)

Question 7. Do you anticipate any further general RIFs or SES RIFs through the end of fiscal year 1983 at DOE? If so, please indicate the division and number of employees to be RIFed. Are there any additional internal reorganizations planned for this year? Please indicate the extent of proposed reorganizations, purpose, and intended implementation date.

Answer. It has been assumed that this question refers to fiscal year 1982 because of the reference to "this year" and because any attempt to provide a detailed projection to the end of fiscal year 1983 would be conjecture at this point.

For the remainder of fiscal year 1982, a number of reorganizations within the Department of Energy will result in reduction-in-force actions.

Notices of impending separation have been issued to approximately 60 employees in Fossil Energy due to a reorganization resulting from a revised concept of the roles of the Fossil Energy Headquarters and Field staffs. These reduction-in-force actions will be effected on August 6, 1982.

Reduction-in-force notices will also be issued to approximately 217 employees of the Economic Regulatory Administration. The actions will be effected on September

30, 1982. We do not know, at this time, how many employees will be separated and how many will be placed in other positions prior to the date of the reduction-in-force.

Notices have also been issued to 2 employees of the Economic Regulatory Administration in Jackson, Mississippi, who are scheduled to be separated on September 3, 1982.

The Richland Operations Office plans to conduct a reduction-in-force that will result in the separation of approximately 4 employees on October 1, 1982. This reduction in force is the result of a lack of work in a support office in Seattle, Washington.

A study conducted under Office of Management and Budget Circular A-76, Policies for Acquiring Commercial or Industrial Products or Services Needed by the Government, will result in reduction-in-force actions. The study was conducted at the Pittsburgh Energy Technology Center resulting in the separation of approximately 9 employees, and will be effected on August 20, 1982.

The San Francisco Operations Office plans to conduct a reorganization that will result in reduction-in-force notices being issued to employees. No separations will result from this reorganization.

Insofar as reductions in force in the Senior Executive Service are concerned, we have approximately 20 Senior Executive Service employees who have been declared surplus and who are being referred for other positions within the Department. If our efforts to place these employees are unsuccessful, these employees may receive reduction-in-force notices concurrent with their being referred to the Office of Personnel Management for placement consideration on a Government-wide basis.

At this time, we do not plan any additional reduction-in-force actions for the remainder of fiscal year 1982. It is possible, however, that reductions in workload or reorganizations may require additional actions.

Reorganizations are planned in two areas: Reorganization of intelligence functions within the Assistant Secretary for Defense Programs (DP) to accommodate intelligence functions transferred from Assistant Secretary for International Affairs to Defense Programs. Due to reducing and changing workloads, some organization changes relating to the Economic Regulatory Administration are under consideration.

RESPONSES OF MR. EDWARDS TO WRITTEN QUESTIONS SUBMITTED BY SENATOR SASSER

Question 1. It is my understanding that only $1 billion of $5.7 billion in alleged oil company overcharges, violations of the Emergency Petroleum Allocation Act's domestic oil pricing provisions, have been fully investigated and settled. Is this correct?

What have been the budget requests, noting deferrals, for the investigation and enforcement program for oil price control violations for 1982? 1983? 1984? Do you view these budgets as adequate considering the rate of work being performed?

Are you aware of a recent report by the General Accounting Office which says, "If ERA does not substantially meet its 1982 objectives its proposed budget of $13.5 million cannot reasonably be expected to provide adequate resources to effectively conclude the crude oil reseller program and to provide adequate coverage of the purchase and sales activities of major refiners." Does the Department expect to request additional funds for 1984, if the reorganization proposal is not enacted by Congress?

Answer. The statement in the first question is not correct. All but approximately 130 cases have now been investigated. Cases that have complete investigations are now either subject to enforcement actions (litigation) or have been settled. The dollar value of the cases still under investigation cannot yet be calculated, but these cases represent less than 1 percent of the total cases investigated by the enforcement program. All of the civil cases involving the 35 major refiners are now either ready for litigation, in litigation or have been settled.

The 1982 funding level for the Economic Regulatory Administration enforcement program was $33.6 million (including $28.4 in deferral) and $13.5 million has been requested for fiscal year 1983. No request has been made to date for fiscal year 1984. The fiscal year 1983 funding request is fully adequate to maintain the personnel level and experience necessary to properly complete the remaining work of the program. The fiscal year 1982 funding has proved to be more than adequate for the program needs this year.

The requested $13.5 million for the fiscal year 1983 enforcement program will fully support the fiscal year 1982 level of staff attorneys along with the needed complement of auditors and legal-support personnel required to resolve the remaining cases. In particular, the fiscal year 1983 funding will maintain the expertise required to complete the investigation of crude oil reseller cases. The Department will likely request funding to support the program for fiscal year 1984 whether or not the reorganization proposal is enacted by the Congress. These funds would be utilized to fund any litigation activities that may carry into the fiscal year.

Question 2. Several reorganizations have been undertaken within the Department of Energy's investigations program. Did you approve the reorganization of the Economic Regulatory Administration which transferred knowledgeable attorneys from the Office of Enforcement to the Office of Special Counsel? What was the rationale for this change?

Did you approve the transfer of six knowledgeable attorneys with ten years of experience with the overcharge investigation, from the Office of Special Investigations to the Office of Special Counsel during May 1982? Why?

Answer. In early May I approved a proposal by the Administrator of the Economic Regulatory Administration, Rayburn Hanzlik, to make modifications in the management of the crude oil reseller and special investigations work in the enforcement program. This change was made to improve the coordination and effectiveness of these two important investigative programs and avoid what had been some duplication of effort. While some personnel, including six General Counsel attorneys, received new assignments in this area of speciality, there was no transfer of personnel or loss of experience in the program. The result has proved to be a better use of key personnel and an improvement in the investigation and resolution of enforcement cases.

Question 3. Did you approve the reductions-in-force of members of the same Office of General Counsel, reported to be issued this July? Who is to be fired?

Answer. It is assumed that the question is in reference to the Office of Special Counsel. Since all enforcement program audit work at the Boston, Massachusetts worksite has been completed, reduction-in-force notices have been issued to the nine auditors and two secretarial employees. The effective date of the notices is July 30, 1982.

Question 4. The General Accounting Office has suggested a standard for the pursuit of the oil overcharges investigations. It stated that "crude oil reseller program should be concluded in such a way as to (1) be fair to those that abided by the regulations, (2) provide equal enforcement to those that did not, and (3) assure that violators are not permitted to retain illegal gains."

Do you agree with these principles? Are funding levels proposed for 1983 adequate to obtain these goals?

Are you aware that, as of April 30, 1982, the Department of Justice had 92 subpoenas outstanding, more than ever before in this investigation, and that the Department is experiencing decreasing company cooperation in its auditing activities?

Answer. The Department agrees with the principles set forth by the General Accounting Office of the crude reseller program. It is because of our experience in the soundness of these principles that the Department has maintained a large staff of experienced enforcement personnel since January 28, 1981, to insure that the violations committed during the control period will be identified and prosecuted. The Department believes that it has proposed adequate resources for fiscal year 1983 to carry out the program in accordance with those principles. In cooperation with the Department of Justice, this Department has devoted substantial resources toward enforcing outstanding subpoenas against those oil companies that were resisting this Department's efforts to obtain access to records necessary to investigate compliance with the pricing and allocation regulations. As a result of several recent subpoena enforcement victories, it is estimated that a number of outstanding subpoena enforcement disputes will be resolved in the near future. The Department will insist on compliance with outstanding subpoenas and will see these matters through to completion.

Question 5. Would you summarize for the Committee all communications with executives of Mobil, Exxon, Amoco and Texaco relative to the reorganization proposal. Would you please submit for the Committee record, all Departmental correspondence with these individuals or their agents on the matter of the proposed reorganization.

Answer. In conversation during social events, the Secretary has spoken to many oil company executives, large and small, about the future of the Department. These conversations are compatible with statements made to the Committee. There is no record of any Departmental correspondence with executives of Mobil, Exxon, Amoco and Texaco or their agents on the matter of the proposed reorganization.

Question 6. I have one final question, if so many functions are to be transferred to one Department, and there are minimal budget savings to be had from reorganization alone why should we reorganize?

Answer. A separate Department of Energy (DOE) symbolizes and probably encourages extensive Government intervention in the energy sector. This Administration is committed to increased reliance on market decisions as the best approach to meeting the Nation's present and future energy needs. A separate department is no longer needed and is, in fact, counterproductive. Assignment of DOE functions to the Commerce Department is fully compatible with predominant reliance on the private sector role in energy decisions.

Research and development activities relating to the various energy sources and to energy effects are closely interrelated and should be kept together. The proposed plan will preserve these relationships by moving them intact to the Commerce Department. Recognition that Government should concentrate its efforts on selected essential energy tasks, and leave the rest to private decision and initiative, implies that the justification for a separate DOE no longer exists. Many of the essential programs of the DOE can be fitted well with Commerce programs and its overall mission. Some programs of the DOE fit naturally elsewhere and the plan so provides.

Savings resulting from the President's proposal are regarded as more than minimal. Upon passage of the legislation, an extensive management improvement program will be implemented with a goal of achieving at least $80 million per year in savings for a 3-year total of $240 million. Over the longer term, an additional savings goal of $750 million has been established.

QUESTIONS REFERRED TO THE DEPARTMENT OF ENERGY FROM THE DEPARTMENT OF COMMERCE

Response to Written Question Submitted by Senator Eagleton

Question 4. The only major energy legislation passed in this Congress (S. 1503) gave the President discretionary authority to allocate oil supplies in a severe shortage. Despite passage by an overwhelming margin in Congress, President Reagan vetoed it. Can you explain the rationale for that decision? Can there possibly be any justification for rejecting discretionary authority for an emergency? Can the President conceive of no circumstances in which he would need this authority?

Answer. The President vetoed S. 1503, the "Standby Petroleum Allocation Act of 1982" on March 20, 1982, based upon the recognition that such legislation is contrary to the best interests of the United States. Experience has clearly demonstrated that free market economic forces are and will continue to be the most efficient allocators of energy resources during supply disruptions.

As stated in the President's veto message, there are ". . . ample powers to take the steps necessary to protect national security, meet our treaty obligations and assist essential public health and safety functions."

In addition, "The bill could be counterproductive to our preparedness efforts. In the event of a supply interruption, the best protection will be stockpiling and plans for switching to less costly ways to achieve our goals. This bill would discourage self-protective measures, because it tells the public that these measures will be nullified by government allocations and controls or that such measures are unnecessary because the government will guarantee them low-priced energy in the event of any disruption.

"The current world oil situation, with declining prices and ample supplies, provides the best opportunity for future preparedness. This is why the Administration continues to add to the Strategic Petroleum Reserve as fast as permanent storage becomes available. By the end of this year we will have nearly tripled the size of the Reserve in two years. All citizens who are concerned about the possibility of shortages and higher prices in the future should use the current opportunity to prepare in ways that are appropriate to their situation."

S. 1503 would have sent precisely the wrong signal to the private sector about the Federal Government's energy policies and would serve as a powerful disincentive to encouraging free market preparation for and response to energy emergency situations.

In a severe national emergency, where national security is at stake, we might consider using allocations under authority of the Defense Production Act.

Responses to Written Questions Submitted by Senator Sasser

Question 2. The compromise budget resolution for fiscal 1983 budgets $400 million for energy conservation programs. Yet, the Administration's policy is to allow the price mechanism alone to encourage conservation and to reduce the government's role in energy conservation. Given this philosophy and the demonstrated reluctance of the Administration to spend already authorized funds for conservation programs, can we expect the funds in this year's budget to be spent?

What are the planned outlays for the various energy conservation programs on a program-by-program basis? Does the Administration plan of fully spend these funds? What are planned personnel levels program-for-program for each program under the Administration reorganization proposal?

Answer. The Administration will act in good faith in carrying out the intent of Congress in relation to appropriations for energy conservation activities. No action will be taken to utilize appropriated funds for other purposes than those authorized without appropriate notification to the Congress. Funds have been requested in the President's Budget for the following programs:

Heat transfer and fluid mechanics	$3,230,000
Materials and processes	2,990,000
Thermochemical energy conversion	2,372,000
Electrochemical storage and conversion	7,220,000
Program direction	1,730,000

If funds are appropriated at this level, we would expect to fully spend all funds.

A total of 41 full-time equivalent positions have been assumed in this budget request. This includes 10 FTE in heat transfer and fluid mechanics, 10 FTE in materials and processes, 9 FTE in thermonuclear energy conversion, and 12 FTE in electrochemical storage and conversion. These levels of personnel are linked to specific programs which would be transferred to Commerce (DOC), therefore, there should be minimal changes in these levels under the reorganization proposed.

Question 4a. Under existing law (Title II, Emergency Energy Conservation Act), the President has the authorization to require the states to develop their own emergency energy plans to achieve targeted reductions in in-state energy consumption. Little technical assistance has been provided by the Department of Energy for the development of stand-by plans, and little was budgeted for each state ($29,000 each). Moreover, the Administration announced in March of 1981 that no additional funding would be forthcoming and that the federal plan, developed as a substitute for State plans that might be ineffective, was all but eliminated.

Will the decentralization of energy emergency preparedness jeopardize our economy during an energy crisis? How, if at all, will the Department of Commerce provide assistance to states and localities in the case of a crisis?

Answer. No. The President vetoed the Standby Petroleum Allocation Act (SPAA) because he believes that the best approach to supply disruptions is to rely mainly on the marketplace to allocate supplies. We anticipate that States will recognize that putting in place mechanisms that did not work at the Federal level, would not work at State and local levels either.

Since we want to help States develop consistent approaches, another part of our strategy is to coordinate with States through providing timely and reliable public information. We are currently meeting on a regular basis with States through the National Governor's Association on a wide range on energy emergency issues. In addition, a conference planned for October 6th sponsored by the Federal Government and the Center for Strategic and International Studies will focus on the role of State and local governments in energy emergencies. We plan to continue these activities at the Department of Commerce to improve our communications with States to ensure appropriate coordinated contingency planning and responses to supply disruptions.

Question 4b. How will non-business concerns be addressed by the Department of Commerce in the case of an energy crisis? How will policy be made to protect social groups—the poor and especially the elderly—in the case of an energy supply shortage?

Answer. In preparing for and responding appropriately to various potential energy supply shortage situations, the Department of Commerce would rely upon a market-oriented approach that would benefit all segments of our economy and society. To the extent that disproportionate impacts are experienced by any particular group, such as the poor or the elderly, such issues would more properly be addressed by other Federal, state and local agencies with responsibility for dealing with health and welfare programs.

Question 4c. Finally, how will the Strategic Petroleum Reserve be used in the case of an international supply crisis? how will Commerce coordinate its emergency programs with the SPR?

Answer. The decisionmaking process regarding the use of the SPR must take into account a large number of elements, including the SPR storage level, the anticipated depth and duration of the interruption and possible subsequent disruptions, the international situation, and the condition of the economy. Because the dimensions of an emergency cannot be determined in advance, SPR drawdown and pricing policies must be flexible. For this reason, preestablished triggers for use of the SPR, such as increases in domestic oil prices, are not considered appropriate or feasible.

The general principles governing the drawdown and distribution of the SPR are included in the SPR Distribution Plan. Briefly, the Distribution Plan provides alternative methods for distributing and pricing SPR oil. The distribution methods include: (1) competitive sales; (2) allocation to selected refiners based on announced selection criteria; and (3) apportionment of buy rights among all eligible refiners.

In keeping with the Administration's emphasis on market based responses to energy emergencies, it is anticipated that SPR oil would be priced at market clearing levels and, to the extent feasible, would be distributed through competitive sales to the highest bidder. Market pricing would encourage the economically efficient use of SPR oil, avoid many administrative complexities, and minimize the risks of seemingly arbitrary buyer selection. Such a pricing policy also would provide the Federal Government with the full market value of the stored oil and enhance the financial ability of the Government to refill the SPR.

Under the proposed reorganization the Assistant Secretary for Energy Emergency Planning will be responsible for overall energy emergency planning including the Strategic Petroleum Reserve. He will coordinate his energy emergency activities including the Strategic Petroleum activities with the new Assistant Secretary for Strategic Planning, who will be responsible for Commerce's existing activities in the areas of industrial mobilization and strategic resources.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY SENATOR SCHMITT

Question. Section 203 transfers to the Department of Agriculture the DOE's responsibilities under the Biomass Energy and Alcohol Fuels Act of 1980. As I understand the proposed legislation, only a portion of the alcohol fuels research and demonstration activities will be transferred. Because the Department of Agriculture is often in a better position to use it, I would like you to review other activities, such as biomass conversion, that might also benefit by a transfer to the Department of Agriculture.

Could you review the DOE's current programs and report on the possibility of transferring other programs benefitting agriculture to the Agriculture Department?

Answer. The proposed legislation on energy reorganization calls for transferring the alcohol fuels demonstration and loan guarantee program to the Department of Agriculture. Under current law, Agriculture already has responsibility for financial assistance to biomass projects with an anticipated annual production capacity of less than 15 million gallons of ethanol (or equivalent). The Department of Energy handles financial assistance to projects involving production of 15 million gallons per year or more. The legislation merely combines these two programs under the Department of Agriculture. This simplifies administrative handling of proposals and eliminates an essentially artificial differentiation on the basis of production capacity. All research activities are proposed to remain in the Department of Commerce, along with other biomass-related research activities. This is fully in keeping with the intent to centralize basic research activities in a single agency, to ensure full coordination of research efforts across technological lines. While having in common their agricultural bases, these technologies should continue to be closely linked to similar technologies in other areas, such as coal gasification and liquefaction. Biomass and alcohol fuel research is also closely linked to ongoing research relative to alternative fuels and to methanol and ethanol use in engines.

PREPARED STATEMENT OF JOSPEH R. WRIGHT

Mr. Chairman and members of the committee, I am happy to be here today to discuss S. 2562, the Federal Energy Reorganization Act of 1982. My experience as Deputy Secretary of Commerce and, now, as Deputy Director of OMB has given me the opportunity to view firsthand the benefits that can be derived by transferring critical energy functions to the Department of Commerce, as well as the broader implications for the Federal Government as a whole.

Secretary Weinberger has described the defense aspects of our proposal, Secretary Edwards has described for you our achievements under the President's Energy initiatives, and Secretary Baldrige has discussed how our reorganization proposal will build upon those achievements. I would like to explain our plans for implementation of the reorganization, stressing Commerce's role, and highlight the management benefits that will result from it.

As we developed our reorganization and implementation plans, we have been careful to preserve and, whenever possible, to strengthen critical features of the Federal energy program. Although the Federal Energy Reorganization Act is necessary to redirect the Government's efforts, we also recognize the need to avoid disruptions of programs that must continue to function properly.

We have taken pains in our planning to preserve close coordination between the nuclear weapons program and the defense establishment through the Military Liaison Committee, representing the Secretary of Defense, and the preparation and review of the Annual Nuclear Weapons Stockpile Memorandum. We will continue to maintain this unique program as an identifiable organizational unit; to treat its almost $5 billion budget as a separate item, traditionally not subject to trade-offs with other programs; and to preserve its organizational and programmatic relationships with both nuclear and basic science research and development.

Along with preserving those features, we intend to strengthen the program. Our proposal upgrades the level of the top civilian engaged in nuclear weapons from an executive level IV Assistant Secretary to an executive level II Deptuy Secretary and assigns statutory responsibility to the Deputy Secretary for providing technical advice to the President on nuclear weapons matter. Under FERA, the weapons program will be given the highest status that it has ever had in four different organizational settings over the past 45 years.

An important source of strength in carrying out the defense programs, as well as the energy research programs, is the expertise and facilities of our 54 National Laboratories and other facilities. The administration is committed to maintaining strong basic research. This program now employs over 108,000 scientists and support staffs. We will continue to provide adequate manpower and budget resources for high-priority research that is not likely to be undertaken by private enterprise because of its long-term and high-cost character. The reorganization will not jeopardize this important effort.

Our proposal will establish the Federal Energy Regulatory Commission as an independent agency. This step will enhance the regulatory independence intended by the Congress, while preserving the Commission's ability to regulate interstate energy transmission, including pipelines and electric power. The Secretary of Commerce will have the statutory right to intervene in Commission proceedings and the right to initiate rulemakings before the Commission.

Federal energy regulation in the past has intervened heavily in private market decision-making with some very questionable results. This emergency gasoline coupon is a good example. Four and eight-tenth billion of these coupons were printed at a cost to the taxpayers of $12 million. Just the storage of these coupons costs nearly $25,000 each year. But Federal intervention is not the key. Government planning for emergencies will no longer involve trying to outguess the marketplace.

As has become evident in reviewing the coupon program and other past emergency programs, the integrity and quality of Federal energy information is vital for sound energy emergency planning and policy. We intend to see that it is preserved. A separate organizational unit is estabished which will be of equal stature and assured integrity to comparable units in the Department of Commerce, such as the Bureau of the Census and the Bureau of Economic Analysis. Statutory language identical to that of the Department of the Energy Organization Act has been included in the proposal for this purpose.

Energy information will be strengthened by being placed in an environment with other professional statistical and economic analysis units with a long history of objective and competent performance. This arrangement provides considerable opportunity for cross-fertilization of information, expertise, and survey techniques.

This transfer will offer benefits for both energy information and Commerce information analysis units, through such means as shared census and survey-taking expertise and professional statistician interchange. We also expect improved Administration economic forecasts and more comprehensive trade planning through sharing of information on the economy and energy use. Economies-of-scale should result from coordination of data-gathering and processing and from administrative and overhead support savings. We also foresee a longer-term potential for integration of large-scale data processing.

We will continue the integration of energy emergency planning with the $2.3 billion Strategic Petroleum and Naval Petroleum reserves, by maintaining there organization linkage under a single Assistant Secretary. In face, these functions will have stronger management attention than at present by having an Assistant Secretary fully devoted to emergency matters and freed of responsibility for environmental, safety and health functions as is now the case in DOE.

These are only illustrations of efforts we have made, and will continue to make, to protect critical programs from disruption and to avoid the implementation problems that occurred with the Department of Energy was formed. I think they demonstrate the extent of our commitment to keep the best features of the Federal energy program strong.

Our proposal also will allow for many programs to be strengthened by the support they will receive through closer relationships with existing Commerce programs.

The inter-relationship between industrial and energy policy is a case in point. Under FERA, responsibility for energy policy will be transferred to the Department of Commerce and delegated to the Deputy Secretary for Energy. Under guidance of the Deputy Secretary for Energy, energy policy will be formulated by a small unit reporting to an Associate Deputy Secretary for Energy Policy and Research. Our objectives are to retain focus on energy policy and provide a professional capability to support energy policy-making, while integrating policy with our general economic policy-analysis process.

The Secretary of Commerce will provide the leadership and oversight to assure that energy-related policy issues are integrated with broader policy analyses and are brought to the attention of the highest level of policy-making. The Cabinet Council on Commerce and Trade, for example, will be the major channel for these policy issues. We also intend to establish Commerce working groups made up of officials from the Economic Affairs, Energy and International Trade units to coordinate and integrate specific policy issues within the Department. This places energy issues in a broader business perspective, while the greater knowledge of energy issues will strengthen Commerce's industry, economic, and trade analysis.

Energy preparedness offers a second area for enhancement. The energy emergency preparedness planning function, including both encouragement of the proper market responses and reliance of Federally-owned reserves, will be transferred to Commerce and assigned to an Assistant Secretary under the Deputy Secretary for Energy. The energy preparedness program can be generally strengthened through the access to studies by the Assistant Secretary for Strategic Planning and to those of the industry and economics specialists of organizations such as the Bureau of Industrial Economics. Support from the energy information program will continue, but energy emergency planning will benefit from better access to the information available through the Bureau of the Census.

A third opportunity for program improvement comes from linking international energy activities to Commerce's international activities. This will enable us to strengthen support for international economic policy formulation and to better integrate these activities. For example, in export promotion the International Trade Administration delivers services through 47 district offices in the United States and in 66 major export markets overseas. These commercial contacts, when linked to the technical expertise of DOE, will produce a more effective trade effort and better dissemination of critical information for U.S. bidders.

Although DOC and DOE already work closely on considering requests to export those nuclear-related items which Commerce licenses, the transfer will result in the DOC authorization and licensing functions being housed in the same Department with DOE's high-level of expertise in the nuclear area. In addition, the review of nuclear exports controlled by the Nuclear Regulatory Commission, rather than Commerce, would receive a more thorough and comprehensive commercial, economic, strategic, and foreign policy scrutiny. DOE's National Laboratories would be available for individual cases that require additional technical expertise.

The Department of Commerce, through the Assistant Secretary for Productivity, Technology and Innovation, is responsible for carrying out the objectives of the Stevenson-Wydler Technology Innovation Act. Part of the Assistant Secretary's duties include administering the National Technical Information Service, which disseminates Federal technological information and developments to business and industry. Complementing this responsibility and capability will be the Department of Energy's technical information center, which was developed in recognition of the enormous technological wealth available through DOE's National Laboratories and other research facilities. We see this as an exciting opportunity for strengthening the Federal productivity and technology innovation program through collaborative management of these activities and without intruding in market-oriented decisions regarding product development.

We have identified DOE functions which are related to energy resources management functions of the Department of the Interior. These are the power marketing administration and the coal mining R&D program. We propose their transfer to Interior. The power marketing functions are closely related to existing interior water policy and power rate activities and to the Bureau of Reclamation's power and production. Coal mining research can readily be absorbed by the Bureau of Mines which has very similar functions and a long-standing understanding of coal mining issues.

Along with the opportunities for strengthening energy programs, the Federal Energy Reorganization Act sets the stage for a wide range of management improvements and cost savings that we plan as part of the President's overall energy intilatives. The opportunity to bring the combined management expertise of two Departments to bear in this effort and the momentum we have developed are critical elements of our plan.

Following passage of FERA, we will launch an intensive management improvement program that we are reasonably confident can save over $80 million per year, or $250 million in lower costs to the taxpayers in just three years. For example, we will have major personnel savings, through the consolidation of general staff areas of the two Departments, such as administration, public affairs and legal services, which now total 2,800 positions. We hope to cut this by 400 positions with an annual savings of $18 million, through economies-of-scale, elimination of duplication, and reduction of overhead.

We further believe that we have a good possibility over a longer term for additional savings that could cumulatively total as much as $750 million over 3 years. Naturally, it is difficult to be any more precise without an in-depth study but we expect to examine three areas for those savings.

First, we will take a hard look at administrative and program management improvements. For example, Commerce's huge data-gathering and analysis programs, presently budgeted at almost $600 million over 3 years and energy information, now forecasted at around $350 million over three years, should yield significant savings through coordinated management and programs.

A second area with great potential for savings is data processing. The Department of Energy and Commerce are both major users of ADP and their combined budgets for the next 3 to 4 years will be close to $2 to 2.5 billion. They presently have equipment valued at nearly $900 million and plan to acquire approximately $600 million in new equipment over the next few years. Given the immensity of these activities, we should find major savings and improvements by dealing with them on a consolidated Basis. Naturally, this will take a careful, in-depth study to achieve these efficiencies.

Third, we will be looking for ways to streamline field operations. The Department of Commerce has over 16,000 field employees located in over 1,000 sites, while Energy has 5,500 field employees in over 70 sites. Let me give you two examples of projects we will be considering. Energy has 8 operating/administrative field offices. Commerce's National Technical Information Service, located in Springfield, and Energy's Technical Information Center, located in Oakridge, Tennessee, both distribute scientific information, in some cases the same. We will look into merging those complementary activities.

Commerce is now consolidating administrative support activities on a test basis for all its bureaus in the northwestern U.S. Given the additional Energy field staff and administrative capability, we should be able to significantly expand that concept and apply it in other parts of the country as well.

In conclusion, Mr. Chairman, we feel that passage of FERA will represent a significant step forward in the history of the Federal energy program. The reorganization plans have been carefully designed in close cooperation with Congress to preserve the strengths of our present energy effort, while allowing us to strengthen programs through closer relationships with existing Commerce programs and to improve management and reduce costs.

It has been a pleasure to have the opportunity to present to this Committee our plans and the benefits we foresee. That concludes my testimony, Mr. Chairman.

Response of Mr. Wright to a Written Question From Senator Stevens

Question. Mr. Wright, you have provided information on FERA which indicates that bringing all energy programs together in 1977 was a bad idea. Could you please elaborate on your reasons for stating this?

Answer. I have not intended to characterize the action in 1977 of bringing energy programs together as a "bad idea". The history of energy organization is a bit too complex to permit such a categorical description of the thinking in 1977. Let me clarify:

Prior to the formation of DOE in 1977 the Federal energy functions were in serious disarray. The Federal Energy Administration was a newly created agency attempting to cope with a rapidly escalating problem and doing so as a temporary agency with a staff largely borrowed from elsewhere. The Energy Research and Development Administration, also newly created by transfer of functions from the Atomic Energy Commission and elsewhere, was a heavily-funded high technology independent agency whose only energy policy guidance was the budget review process. In effect, you had well-heeled scientists inventing their own policy framework. The former Federal Power Commission was setting de facto energy policy as an unintended side effect of its adjudicatory role and doing so in deliberate isolation from energy information and analyses being generated by the executive agencies. Interior, meanwhile, was managing our fossil energy resources on the basis of its separate perception of our energy needs and priorities. No one at cabinet level had a comprehensive view of the energy situation or felt a responsibility to take the lead.

Given this disarray at a time of growing public alarm, I would not say that it was a "bad idea" to pull energy together and give it visibility and accountability at cabinet level. For the record, we should note that President Ford, immediately before surrendering his office to President Carter, sent his own proposal to Congress for the establishment of a Department of Energy. The Carer proposal was nearly identical to the Ford proposal.

President Carter organized energy programs in a manner that lent support to his energy policies and the Federal role in energy affairs that was implicit in his policies. The creation of a separate Energy Department was completely consistent with key elements of the Carter energy policy—price and allocation control to shield the nation, artificially, from an oil shortfall, enormous Federal spending to force-feed the development of energy technologies, and regulation to control the decisions of energy producers and consumers alike. A separate department makes reasonable sense if we assume this much intervention in energy affairs.

President Reagan, as we all know, sees a very different and more narrowly defined Federal energy role. In keeping with this altered view, President Reagan proposes to organize the continuing core energy functions in a way that permits them to be treated, realistically, as part of our overall industrial economy and with government in a supplementary rather than interventionist role. Together with related economic and industrial analysis functions, energy will continue to have cabinet level representation, unlike the pre-DOE days.

Responses of Mr. Wright to Written Questions Submitted by Senator Eagleton

Question 1. As a coordinator of the Administration's legislative proposal, did OMB consult with the Department of State about the disposition of the international energy functions within the new Department of Commerce? Did the State Department concur with the decision to move all of the DOE international functions to the Department of Commerce?

Answer. In formulating the proposal contained in FERA, we had the benefit of an interagency steering committee which included representatives of the State Department.

State Department did not take a position with respect to the disposition of international energy functions within Commerce—the first of your questions. State Department representatives did urge consideration of transferring certain non-proliferation functions to State Department. After having presented this point of view, they accepted the judgment of the other members of the steering committee and of the Administration.

Question 2. As a coordinator of the Administration's legislative proposal, did OMB consult with the Federal Energy Regulatory Commission about the disposition of the following programs: (*a*) PURPA ratemaking standards? (*b*) NGPA curtailment priorities? (*c*) Natural gas import and export authorizations? (*d*) PIFUA exemptions?

Did FERC concur with the decision to move each of those programs to the Department of Commerce?

Answer. Through the OMB interagency clearance process, and through periodic meetings of a high-level interagency steering committee, we did consult with FERC about each of the items listed in a–d. The Administration proposal represents the considered judgment of all elements of the Executive branch, including FERC, which have an interest in this bill.

Chairman **Roth**. The committee is in recess.

[Whereupon, at 1:15 p.m. the hearing was adjourned, subject to the call of the Chair.]

FEDERAL ENERGY REORGANIZATION ACT OF 1982

TUESDAY, AUGUST 17, 1982

U.S. SENATE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, D.C.

The committee met at 9:30 a.m., in room 3302, Dirksen Senate Office Building, Hon. William V. Roth, Jr. (chairman of the committee) presiding.

Present: Senator Roth and Senator Cohen.

Chairman ROTH. The committee will please be in order.

I have a statement which I will submit for the record at this point.

OPENING STATEMENT OF SENATOR ROTH

This morning the Committee on Governmental Affairs convenes its second hearing on S. 2562, the Federal Energy Reorganization Act of 1982. This energy proposal, by merging energy activities with existing Commerce Department programs, is intended to ensure that energy issues will be incorporated in our overall national economic planning effort. The policy embodied in this reorganization will naturally encourage energy technologies that are marketable. At the same time it will discurage the excessive energy regulatory and allocational activities which proved so burdensome and costly in the early years of the Energy Department. Though currently scaled back, these policies are more likely to be applied once again in an independent Energy Department than in a department devoted to fostering commercial activities.

Administration representatives have characterized this reorganization as a fine-tuning of the changes brought about by the creation of the Department of Energy in 1977. In this sense, the Commerce merger retains the most desirable aspects of the earlier consolidation and anticipates the elimination of government support for energy research, development and commercialization activities better conducted by the private sector. At the same time the new department will continue the long term, high risk energy research and development activities which are essential for our national security and energy self-sufficiency.

On June 24, administration representatives testified before this committee in support of S.2562. At that time, Secretary Edwards described the unsatisfactory nature of national energy policies dating back to the oil embargo of 1973. The energy secretary also cited regulatory policies that failed to achieve their goals and produced costly side effects, government funding for large scale demonstration and commercialization activities that would have been better developed by the private sector, and a buregoning energy bureaucracy as examples of an energy policy gone awry.

Secretary of Commerce, Malcolm Baldrige, spoke to the appropriateness of the Commerce Department merger with energy programs. In so doing he underscored the natural overlap of activities between the two departments, the enhanced management capability afforded by a single department, and the high level of attention that energy programs would receive in the new Commerce Department.

Secretary of Defense Caspar W. Weinberger offered testimony ensuring that support for the nuclear weapons programs would be enhanced by this reorganization. The Secretary stressed that the important strictures and the intent of the Atomic Energy Act will be maintained by this reorganization.

Mr. Joseph R. Wright, who is Deputy Director of the Office of Management and Budget, in his statement similarly stressed that the reorganization will strengthen the civilian energy programs and defense weapons programs now located in the Energy Department.

In the course of our first hearing many searching questions were asked about this reorganization. Several Senators questioned whether this plan sends the appropriate signal to our allies abroad and to the American people in a policy area where we may face severe and crippling disruption of foreign sources. The issue of a need for balance among the various energy technologies was raised in light of the strong push today for an expanded nuclear research and development effort.

Other members questioned whether the Commerce Department is suited to assume these new energy related responsibilities because of the highly technical nature of these programs and the amount of responsibility that the merger would impose on a single cabinet secretary. I share interest in some of these isues.

Certainly the availability of a dependable and affordable supply of energy remains one of the most important problems facing this nation today. As I have said in the past, no matter what organizational pattern we select for our energy programs we must provide for sufficient long term energy supply and protect against the threat of short term supply dispution.

Additionally, the continued support for renewable energy and conservation programs is essential to prevent our nation from ever again being held hostage to a single energy source.

As I stressed in the June hearing, I am very interested in seeing a detailed analysis of the cost savings to be brought about by this reorganization.

Finally, as we review this proposal we must remain aware of the important programs in the Department of Commerce and guard against lessening the support of these activities so vital to our ability to compete in international markets.

This morning we will hear a statement from Senator Packwood in support of S. 2562. Senator Tower, who was unable to attend this morning because of a scheduling complication, submitted a statement for the record that embraces the proposed Energy Department reorganization. With the conclusion of this morning's votes we will hear from the remaining witnesses. Each of these individuals will add a constructive perspective to the committee record, and I look forward with interest to each of their statements.

Chairman ROTH. At this time it is my pleasure to welcome the Chairman of the Commerce Committee and a good friend and colleague, Bob Packwood.

Would you please come forward?

TESTIMONY OF HON. ROBERT W. PACKWOOD, U.S. SENATOR FROM THE STATE OF OREGON, CHAIRMAN, SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

Senator PACKWOOD. Mr. Chairman, thank you.

Chairman ROTH. I know that we have many votes scheduled for this morning.

Senator PACKWOOD. I have a lengthy statement which I would ask that you insert in the record in full. I will read a much shorter statement in time for both you and me, and I think Senator Tower to get to the floor by 10 o'clock.

Mr. Chairman, the overriding concern of the Committee on Commerce, Science, and Transportation in considering S. 2562 has been whether transferring responsibilities from the Department of Energy will complement or compromise the existing functions of the Department of Commerce. On that basis, the transfers proposed are expected, overall, to advance both the mission of the Department of Commerce and the national interest in a sound, productive energy policy.

The benefits that will result are primarily attributable to:

First and foremost, integrating energy policy with the Government's overall economic and business policymaking; transferring the energy research and development functions intact and coordinating these with the established programs of research and development in the Department of Commerce, and combining contingency planning for disruptions of energy supplies and that for strategic materials.

An additional issue arises from incorporating the nuclear weapons program within the Department of Commerce. It is the benefits and the nuclear weapons program that I wish to address.

All steps of recovery, processing, manufacturing, distribution, and retailing of energy have important consequenes for industry and commerce. Energy is a vast business activity, which needs to be a primary concern of that department of the Government which is most responsible for business.

Collection of energy information, materials, and energy-related environmental research, nuclear trade regulation, and energy-related business analysis are examples of functions shared by the Department of Commerce and the Department of Energy. Bringing these functions closer together will enhance energy development and supply as one of the Nation's most important domestic and international businesses.

The Department of Commerce has primary responsibility for data collection and economic and industrial analysis within the Federal Government. Transferring responsibilities from the Energy Department to the Commerce Department for energy information, planning, and analysis will put them in the mainstream of the Government's statistical and analytical activities. Closer association among energy information activities and the Bureaus of the Census, Economic Analysis, and Industrial Economics will provide a significant improvement of the Government's ability to understand the economic impacts of developments in the energy sector.

Exports of energy-related equipment and energy resources are already important to the U.S. economy and our balance of trade. The Commerce Department's International Trade Administration [ITA], which has primary responsibility for implementing international trade policies and fostering U.S. exports, is promoting the export of energy resources such as coal and American-made energy equipment.

The reorganization transfers the extensive research and development program of the Department of Energy to the Department of Commerce, which has substantial involvement and experience in managing large technical agencies, such as the National Oceanic and Atmospheric Administration [NOAA] and the National Bureau of Standards [NBS]. Almost one-quarter of the current budget of the Commerce Department is dedicated to research and development.

There will be minimum disruption of key energy research and development programs since they will be transferred intact. The unique capabilities of the National Laboratories are recognized and will be preserved.

Environmental research offers a particularly important opportunity to relate better some of the research in the Department of Energy with that of NOAA, the lead Federal agency for climate and ocean research. The long-run consequences of fossil energy usage on the world's environment are a good example. Currently, the Department of Energy conducts part of this research in collaboration with NOAA.

The reorganization places energy science and technology in the Department most able to link potentially commercial discoveries with the interests of the private sector. Energy-related industries characteristically exhibit rapid growth and significant potential for export development and job creation.

A major function of the Department of Commerce is the encouragement of commercial applications of new technologies, thereby strengthening industries, creating new jobs and improving our country's competitive posture.

Emergency preparedness and strategic planning are other good examples of the benefits of reorganization. Incorporating the emergency preparedness activities of the Department of Energy within the Department of Commerce will improve Federal planning for all strategic resources.

The Department of Commerce currently has responsibility for the emergency allocation of all strategic materials, except energy, under the Defense Production Act, and for control of exports of materials in short supply under the Export Administration Act.

Combining the informational, emergency preparedness and international activities of the Department of Energy with those of the Department of Commerce will strengthen the Government's ability to anticipate and plan for energy and strategic materials emergencies.

The transfer of the nuclear weapons program is a special issue. Since the Atomic Energy Commission was established in 1947, every administration has been committed to civilian control of nuclear weapons research, development, and production. The proposed reorganization maintains that basic and important principle. At the same time, while the missions of nuclear energy research and development and weapons activities are fundamentally different, they are also closely interrelated; they use common science, technologies, facilities, and contractors. Organizing these two sets of activities under separate, parallel deputy secretaries will maintain the synergistic relationships and provide for the distinctive requirements of the weapons program.

Successful management of the weapons program requires effective working arrangements with the Department of Defense and other parts of the defense community. Various international responsibilities of the Department of Commerce have already entailed a network of working relationships of the kind required.

On balance, then, the reorganization in S. 2562 is expected to complement and enhance responsibilities which already reside in the Department of Commerce.

S. 2562 preserves the legitimate governmental functions of the Department of Energy and relates them better to the national interest. At the same time, the goal of removing the Federal Government from those areas which are best left with the private sector has been met.

Mr. Chairman, I thank you for your courtesy and there is my entire statement for the record.

Chairman ROTH. Thank you for coming before this committee during its consideration of the reorganization of the Department of Energy.

Senator Packwood, I have a couple of questions I would like to ask you.

One, there are those who are saying that by folding the Department of Energy into the Department of Commerce, we are giving a signal that energy is no longer a first priority.

I happen to personally feel that it is one of the most critical problems that this Nation faces. The temporary glut of oil is something that can change overnight and therefore one of the most important things we can do is to try to develop policies that will insure a plentiful supply of energy at a reasonable cost for the long term.

Do you see this as an effort to downplay the importance of energy policy?

Senator PACKWOOD. No, not at all.

Now, as a matter of fact, I am inclined to think it enhances the importance for this reason, Mr. Chairman. When this country was founded, we had four departments: The War Department, the Treasury Department, the Post Office, and Foreign Relations. Since that time we have added Cabinets, and quite frankly, I think we have passed the position in which it can be said that creating a department heightens the importance of whatever the function is in the department. On that theory we should have 30 or 35 or 40 or 45 different Cabinet positions, and you and I know what that would mean. It would mean that all of the Cabinet positions would be reduced to a nullity and three or four people on the White House staff would determine the priorities of the country.

Now, I think by cutting back the number of Cabinets, by consolidating into fewer Cabinet positions, we are heightening the importance of those positions that are left and the functions that go into those Cabinets rather than diminishing them.

Chairman ROTH. I watched and admired much of the work you did as a member of the Finance Committee when we were considering energy legislation in that committee. As I vividly recall, you were particularly concerned with conservation, with the development of what some people called a more exotic kind of energy. There has been criticism of this reorganization because it allegedly will overemphasize traditional forms of energy and underestimate the importance of the more exotic forms of energy as well as conservation.

I personally happen to be of the school that conservation is critically important. I believe further that we cannot overlook any possible new source of energy.

As chairman of the Commerce Committee, what would be your views on the approach which you take long term?

Senator PACKWOOD. You and I agree completely. And I have had some quarrels with past administrations where they have tried to cut down the funds for solar research, where they have tried to diminish the importance of alternative forms of energy, cogeneration to be an example. Cogeneration is our North Slope as far as additional energy is concerned. I see it in my area in the Northwest. Sixty, seventy years ago most of the lumber mills generated their own electricity. They were not on a central hookup. The mills were in rural parts of the State. So they burned excess wood slash and generated electricity with it. Of course, then came along the centralized distribution of electricity, they all hooked up to the wire and quit doing it.

Now, a number have gone back to doing it again. They find it cheaper and more efficient than buying electricity from the central repository. We have a number of areas where you can generate electricity with old dams on very small streams that 20, 30, 40 years ago degenerated, went out of existence. Those are being brought back. We are generating electricity with windmills. This country is an absolute cornucopia of energy, both fossil and nonfossil.

For those who cry that this country is in an energy crunch that we can't get out of, I look at our blessings and say, "How lucky we are." Look at Japan: No coal, no oil, very little hydro, import 90 percent of all the energy they use, and manage to compete in this world. Here we have a 400-year supply of coal; we have almost unlimited ability for cogeneration, untapped hydro resources—not talking about Grand Coulee Dams, but about small, run-of-the-river dams with bulk generators. There are so many alternative energy sources in this country; to say we cannot develop them, that we cannot be energy self-sufficient is a statement that I find hard to believe when I hear people say it.

Chairman Roth. I subscribe fully to that point of view.

Senator Cohen?

Senator Cohen. Senator Packwood, did you support the creation of DOE in 1977?

Senator Packwood. Yes, I did.

Senator Cohen. What has changed from the time it was created to the point now where you would recommend its abolition and reorganization?

Senator Packwood. Over the years I have been here I have tilted back and forth about allowing the President to manage the Government the way he wants to manage it, whether it be a Republican President or a Democratic President. President Carter wanted to create a Department of Energy; I thought, "Let him go ahead." I thought we had long since passed the point of no return on the creation of additional agencies.

When we went beyond eight or nine Cabinets, I thought we went too many. President Reagan wants to abolish the Department of Energy. I have come to the conclusion now that I think we need no more new departments. What we probably need is the consolidation of several that we do have and to hopefully efficiently manage Cabinets rather than creating one more and then one more. So while President Carter wanted it, I went along with it. I had misgivings about it. It was his administration.

President Reagan wants to abolish it. I am inclined to let this President have his head except now I philosophically think we should not be creating any more new departments.

Senator Cohen. By way of comparison, would that view extend to the Department of Education?

Senator Packwood. I have mixed feelings about that. I remember when the Department of Health, Education and Welfare was created. Education wanted to be part of it to heighten prestige. It was then just a small subaltern in the Federal Government. We created the Department of Health, Education and Welfare so that we could intelligently manage those disparate health, welfare interests in one super department that would be well run.

I don't need to recount to you the history of the management of the Department of Health, Education and Welfare, now the Department of Health and Human Services. To be frank with you, I did not think it was well managed. I voted for the Department of Education on the assumption that anything that was taken away from the Department of Health, Education and Welfare was probably a step in the right direction.

Senator COHEN. What areas are best left with the private sector for the development of energy policy?

Senator PACKWOOD. Those that the market will support without subsidy. I will give you a good illustration. If you are going to put solar energy in your home, we have a 40-percent solar energy credit, some States have credits beyond that, up to a $10,000 investment. I don't think solar would yet be competitive but for that subsidy. With the subsidy it is. You also have the fact that when you put in solar energy, you have got a capital investment. When you are using oil, when you are using natural gas, you are allowed to write it off as a business deduction month by month as you use it. So where the market is not yet competitive, I would support subsidies. Sometimes they are direct Government grants. Sometimes they are tax credits. They are both subsidies until those alternative energies can become competitive.

Senator COHEN. There is one thing that especially troubles me about some of the programs that are voted upon by Congress. I know, for example, that the people coming from the West that are leading the sagebrush rebellion are first charging up the hill calling for a balanced budget. Yet several weeks ago we had the so-called reclamation projects bill on the floor which was of note to me, because I find a disturbing insensitivity to the needs of the Northeast.

For example, weatherization programs and conservation programs have been virtually gutted or at least substantially reduced during the course of the past few years. Yet I find the same people who are so eager to reduce these programs are the first ones out of the line to call for reclamation projects. You have water, for example, that is very vital to the West, just as oil is vital to the East, at $3.10 an acre-foot, the rest of it being subsidized by the Federal taxpayer where on the open market it would be $100 an acre-foot.

I find that to be a striking inconsistency with the so-called free market approach taken by many people in that area of the country.

Senator PACKWOOD. It depends on what you want. I am not a cosponsor of the sagebrush rebellion bills and do not support them.

Again, if you look historically, the whole West was developed intentionally by subsidy. We gave lands to the railroads so they would go west. So today some railroads are some of the biggest owners of timber and coal, not because they bought it but because we gave it to them 100 years ago so they would go west.

We gave 160 acres to anybody who would move west. We gave away what we would call prior appropriation of water rights, and said, if you get there first, you get to use the water first. It is yours. You don't quite own it but you have the right of first use of it. Those were all subsidies to encourage the development of the West.

Senator Cohen. It didn't develop it?

Senator Packwood. No. We haven't come close to finishing the development of the West yet. You and I can agree that there are areas that we haven't even scratched the surface yet. I can look at eastern Oregon, eastern Washington, where the Columbia River flows by bluffs that are 1,500, 2,000 feet high.

The only thing that keeps that land on these great plateaus from being developed is we haven't pumped water out of the Columbia up to them.

You go to a country like Israel. You see how carefully they shepard every acre of sand, nurture it, water it, grow things in areas that our farmers would say is worthless land. Agriculture is one of our extraordinary exports, one of the few things we can do better than the rest of the world. We have not even by a quarter——

Senator Cohen. When are the farmers going to pay the fair market value of that water and then pass it on to the consumers as we have to do in the Northeast?

Senator Packwood. When the market, when the public is prepared to pay from the standpoint of food what it would cost to grow it on that land.

We are subsidizing it. But at the moment, that is why the land isn't developed now. The market at the moment would not justify pumping Columbia River water 1,500 to 2,000 feet so you can—storing it—so you reached a level where you could use it for irrigation. So the land goes undeveloped.

Senator Cohen. In other words, we are going to continue the same subsidies voted 100 years ago to encourage people to locate in the West; we're going to continue those ad infinitum until such time as we can pump water up to the Columbia?

Senator Packwood. There are some States that are more receptive to people moving to their States than others.

Senator Cohen. As I recall, Oregon was one that tried to keep people out by saying, come.

Senator Packwood. It didn't work. So many came we got an extra Member of Congress.

Senator Cohen. What about the nuclear breeder reactor? Do you think that is something that should be subsidized by the Federal Government?

Senator Packwood. I have supported it in the past and if we are going to continue down the road of the breeder, I assume it is not ready yet commercially to pay its way. But of course the entire nuclear industry from its infancy has been subsidized by the Federal Government. As far as this country is concerned, I will say this, though, we could make it if making it means energy self-sufficiency. We could make it if we never built another nuclear reactor in this country. We are lucky. We have so many alternative forms of energy that we can choose to go ahead or not go ahead with atomic energy and still be energy self-sufficient.

You may for other reasons want to go ahead with atomic energy and obviously I am not talking about bombs, but I am talking about the rest of this world. The export of nuclear energy can again be a great dollar earner for peaceful uses in electric generation in countries that have no other alternative; but the United States could make it without it.

Senator COHEN. I know this is a little bit off the subject of the reorganization of the Department of Energy, but something has been troubling me for sometime now. As one who led the effort in the Senate to kill a major power project for the State of Maine because I thought it was a boondoggle, $1 billion power project that would have generated about 2 hours of electricity a day at peaking power, at a cost of in excess of $1 billion to the people in this country.

Nonetheless, I had the burden of explaining to my own constituents, who have asked, why are you doing this? Why are you doing what most other areas of the country refuse to do?

When I look at our water power project program, it is something that, quite frankly, is a shameful waste of taxpayers' dollars and, yet, I have the burden of going back to my own constituents who are asking, why are you cutting out jobs that could be used here in the State of Maine? Why won't you do the same thing they are doing in ever other part of the country? At some point it has got to stop. This doesn't make good economic sense. It doesn't make good environmental sense in addition to that. Yet, I find a different standard being applied in other areas of the country by the same people who come and talk about the free market theory of energy. I don't find very much consistency. Maybe it is an illusion or wishful thinking on my part that the Department of Energy could establish a policy.

I don't think it is so much a question of having a Department as it is having a policy. I don't know frankly what this reorganization will accomplish in the way of furthering the policy unless we are subscribing to some notion of letting the free market force us to make decisions and thereby establish a policy.

Senator PACKWOOD. There are all kinds of things that the Government does in terms of subsidies, some of which apply to the Northeast, some of which apply to the West, although incidentally, while I didn't actually kill three dams, I succeeded after a 7-year battle in getting the Hells Canyon area put off as off-limits to dams. There would be three dams built there by Republic Dam, that are not today built, by an all subsidized power. But we subsidize and justifiably, the Coast Guard to provide services to your State, to my State, that don't pay their own way. But we say, if we leave it to the market, what is going to happen? Who is going to rescue the boats when they turn over. That is a subsidy. The solar energy tax credits are a subsidy. They are a good thing subsidy. They are things we ought to be doing. We wouldn't be doing them without the subsidy.

When we first developed the oil industry in this country we gave it a very generous subsidy and justifiably at the time we started to develop oil. I think it would not have developed as rapidly as it did but for the subsidy.

The problem comes in that it is very difficult ~~to cross~~ that line where the subsidy should or can be stopped.

As you and I are well familiar, anybody that has any tax benefit break or subsidy will argue with you until they are blue in the face that it must continue from now to eternity.

If it is taken away, the industry will collapse.

Senator **Cohen**. I agree.

Chairman **Roth**. Thank you, very much for being here today, Senator Packwood. I am pleased that when this new merger takes place you will play a key role as chairman of the Commerce Committee.

I know that you will continue to be interested in the conservation side of energy as well as some of the more exotic types. I think that is important. And I do appreciate your being here today and will call upon you for further advice and assistance.

Senator **Packwood**. Thank you, Mr. Chairman and I will see you and Senator Cohen on the floor in a few minutes for 10 votes.

[Senator Packwood's prepared statement follows:]

PREPARED STATEMENT OF SENATOR PACKWOOD

The overriding concern of the Committee on Commerce, Science, and Transportation in considering S. 2562 has been whether transferring responsibilities from the Department of Energy will complement or compromise the existing functions of the Department of Commerce. On that basis, the transfers proposed are expected, overall, to advance both the mission of the Department of Commerce and the national interest in a sound, productive energy policy.

The benefits that will result are primarily attributable to: First and foremost, integrating energy policy with the Government's overall economic and business policymaking; transferring the energy research and development functions intact and coordinating these with the established programs of research and development in the Department of Commerce; and combining contingency planning for disruptions of energy supplies and that for strategic materials.

An additional issue arises from incorporating the nuclear weapons program within the Department of Commerce. It is the benefits and the nuclear weapns program that I wish to address.

Whereas energy in the ground or uncaptured is a resource, all steps of recovery, processing, manufacturing, distribution and retailing of energy have important consequences for industry and commerce. Energy is a vast business activity, which needs to be a primary concern of that Department of the Government which is most responsible for business. The government's perspective on energy must emphasize both the resource and the implications for trade and commerce.

Collection of energy information, materials and energy-related environmental research, nuclear trade regulation, and energy-related business analysis are examples of functions shared by the Department of Commerce and the Department of Energy. Bringing these functions closer together will enhance energy development and supply as one of the Nation's most important domestic and international businesses.

The Department of Commerce has primary responsibility for data collection and economic and industrial analysis within the Federal Government. Transferring responsibilities from the Energy Department to the Commerce Department for energy information, planning and analysis will put them in the mainstream of the Government's statistical and analytical activities. Closer association among energy information activities and the Bureau of Census, economic analysis, and industrial economics will provde a significant improvement of the Government's ability to understand the economic impacts of developments in the energy sector. The capability of the Department of Commerce to develop policy, evaluate business trends and requirements promote U.S. energy products and services in the international marketplace, and improve the effectiveness of the nuclear industry should be notably strengthened.

Exports of energy-related equipment and energy resources are already important to the U.S. economy and our balance of trade. The Commerce Department's International Trade Administration [ITA], which has primary responsibility for implementing international trade policies and fostering U.S. exports, is promoting the export of energy resources such as coal and American made energy equipment. Placing the Energy Department's International energy activities in Commerce should expand further the place of U.S. energy products and equipment in the international marketplace.

Advances in energy technology along with energy availability and cost are equally influential in determining the pace and direction of essentially all technological developments within our economy. Our success will depend on how well we understand and manage our research and development programs, the requirements of the market, and our investment capacity. These requirements argue for relating Federal support of energy research and development more closely with the broader concerns for our entire industrial economy.

The reorganization under S. 2562 transfers the extensive research and development program of the Department of Energy to the Department of Commerce, which has substantial involvement and experience in managing large technical agencies, such as the National Oceanic and Atmospheric Administration [NOAA] and the National Bureau of Standards [NBS]. Almost one-quarter of the current budget of the Commerce Department is dedicated to research and development. The environment necessary to attain the objectives of long-range energy development will be maintained.

There will be minimum disruption of key energy research and development programs since they will be transferred intact. The unique capabilities of the national laboratories, which support fundamental high energy physics and nuclear and non-nuclear energy research and development, are recognized and will be preserved.

Environmental research offers a particularly important opportunity to relate better some of the research in the Department of Energy with that of NOAA, the lead Federal agency for climate and ocean research. The long run consequences of fossil energy usage on the world's environment are a ggod example. Currently, the Department of Energy conducts part of this research in collaboration with NOAA. The progress and impact of this critical line of research should be notably advanced by the reorganization.

The reorganization places energy science and technology in the department most able to link potentially commercial discoveries with the interests of the private sector. Energy-related industries characteristically exhibit rapid growth and significant potential for export development and job creation.

A major function of the Department of Commerce is the encouragement of commercial application of new technologies, thereby strengthening industries, creating new jobs and improving our country's competitive posture. The department pursues this responsibility in many ways, including, business outreach, information exchange, market assessment, business consultation, and, in the case of foreign markets, business assistance. Commerce has avoided the subsidization of businesses, functioning rather as the intermediary and transfer agent between federal activities and the private sector.

Emergency preparedness and strategic planning are other good examples of the benefits of reorganization. Incorporating the emergency preparedness activities of the Department of Energy within the Department of Commerce will improve Federal planning for all strategic resources. The major responsibility being assumed by the Department of Commerce will be that of contingency planning to respond to oil supply disruptions—planning it already does for other strategic materials.

The Department of Commerce currently has responsibility for the emergency allocation of all strategic materials, except energy, under the Defense Production Act, and for control of exports of materials in short supply under the Export Administration Act.

Effective contingency planning requires understanding the national and international economies, including how disruptions in energy supply may affect the Nation's ability to produce or use other critical materials. Combining the informational, emergency preparedness and international activities of the Department of Energy with those of the Department of Commerce will strengthen the Government's ability to anticipate and plan for energy and strategic materials emergencies.

The transfer of the nuclear weapons program is a special issue.

Since the Atomic Energy Commission was established in 1947, every administration has been committed to civilian control of nuclear weapons research, development, and production. The proposed reorganization maintains that basic and important principle.

At the same time, while the missions of nuclear energy research and development and weapons activities are fundamentally different, they are also closely interrelated; they use common science, technologies, facilities and contractors. Organizing these two sets of activities under separate, parallel deputy secretaries will maintain the synergistic relationships and provide for the distinctive requirements of the weapons program.

Successful management of the weapons program requires effective working arrangements with the Department of Defense and other parts of the defense community. Various international responsibilities of the Department of Commerce have already entailed a network of working relationships of the kind required.

On balance, then, the reorganization in S. 2562 is expected to complement and enhance responsibilities which already reside in the Department of Commerce. Our ability to deal with energy as a resource and as a factor in trade and commerce will benefit substantially.

Let me comment briefly on some of the organizational provisions of S. 2562, which may need to be examined further sooner or later.

Section 402 creates an Assistant Secretary for Strategic Planning "relating to strategic materials and industrial mobilization . . ." However, "functions relating to reducing United States vulnerability to *energy* supply interruptions and planning for energy emergencies" is vested in an Assistant Secretary for Energy Emergency Planning. Each Assistant Secretary reports to a different Deputy Secretary. At some point this divided assignment of emergency and strategic planning responsibilities should be further examined as to whether they should be related more closely, most likely under the Assistant Secretary for Strategic Planning. The possibility of such organizational rearrangement points up another factor. Section 613 of S. 2562 denies the Secretary of Commerce authority "to establish, alter, consolidate, or discontinue organizational units or components in the department" for "organizations" established under title III, which addresses "organization of energy and defense programs functions." The Assistant Secretary for Energy Emergency Planning is created under this title. Section 613 may be an excessive constraint on the Secretary's ability to manage his department responsively and effectively.

Finally, there is the separation of energy policy responsibilities from those for national and international economic policy. Each set of responsibilities is under a different Deputy Secretary and will require a special effort to assure that the intended and necessary coordination is achieved.

While I point out these provisions of S. 2562 as possible concerns, they should prove manageable in the context of the overall reorganization proposed.

Most important, S. 2562 preserves the legitimate governmental functions of the department of Energy and relates them better to the national interest. At the same time the goal of removing the Federal Government from those areas which are best left with the private sector has been met.

Chairman ROTH. I regret to announce that at this time the committee will be recessing until 12:15. The Senate will have 10 rollcall votes in order. Rather than experience that repeated interruption, we decided to postpone the other witnesses until the conclusion of the rollcall votes.

Senator Tower, unfortunately, could not be here at the later time. So we will include his statement as part of the record, and also a statement from Senator Percy.

[The prepared statements of Senator Tower and Senator Percy follow:]

STATEMENT OF SENATOR JOHN TOWER

Mr. Chairman, I am pleased to be invited to present a statement concerning the President's proposal for reorganization of the Department of Energy and Commerce.

I believe the reorganization proposal as embodied in S. 2562 is a considerable improvement over earlier versions of draft legislation reflecting the Administration's decision to reorganize the energy programs now residing in the Department of Energy. I say this after careful review of the President's proposal, and inlight of other possible alternatives which may still appear attractive to some. My own personal preference has always been for a return to an independent federal agency, much like the former Atomic Energy Commission. However, all reorganizations involve compromises, and I believe the proposed organization realignment contains compromises that will result in an efficient and effective realignment of the major programs to be lodged in the reconstituted Department of Commerce.

I am particularly concerned with the need to assure the maintenance of a strong and effective organization to manage the defense programs involved in the production of nuclear weapons. For the information of my colleagues, decisions as to which nuclear weapons to produce and on what schedule are not made by the Department of Defense or the Department of Energy. The President himself, based on imput from, not only the Departments of Defense and Energy, but also from the State Department, the Arms Control Community, and many others, approves the program for nuclear weapons production—and retirments, I might add. The Nuclear Weapons Stockpile Memorandum, approved each year by the President, sets forth firm weapons production requirements for the five year period following the Memorandum and provides planning guidance for another 10-year period. The Department of Energy translates the Stockpile Memorandum requirements into budget and manpower needs and executes the President's program with resources provided by the Congress.

I feel strongly that it is necessary to place the official responsible for these nuclear defense programs at the highest level in the Department of Commerce. The proposed legislation would do that; it authorizes a Deputy Secretary for Defense Programs. Further, it is important that the Deputy Secretary for Defense Programs be available to the President to provide advice and counsel on nuclear arms strategy and proliferation issues. This is accomplished in section 301 which provides that the Deputy Secretary for Defense Programs shall have direct access to the President.

The historical importance of the integrated nuclear weapons research, development, testing, and production complex is recognized in the bill; that complex is preserved intact in the proposed Department of Commerce organization. In this regard, I want to emphasize the strategic importance of the contributions made by this vital national resource to the stability and peace this nation has enjoyed over the past 40 years. With continued focus in the news media on the armed conflicts and social unrest generated throughout the world by those who would change the international balance of power, it is sometimes overlooked that none of these very explosive situations has resulted in a major conflict, directly involving the world super powers, since World War II. In that regard, the past forty years, the nuclear age, is unique in human history. Prior to that there was major armed conflict between the world super powers at least every twenty years. This is not the result of a sudden change in human nature. I believe it is due in large part to the deterrent effect of our nuclear weapons capability. Continuing progress in high quality nuclear weapons technology is vital to our national interest until we can achieve an arms control agreement that provides permanent reductions, and ultimately the elimination of all nuclear weapons. To that end we must assure that our nuclear defense programs are properly organized and conducted, and that the capabilities and resources of our nuclear weapons complex continue to be of the highest order.

The various components of the nuclear weapons complex are necessarily closely coordinated and integrated. The proposed Department of Commerce organization would enable this to continue. The basic research and development of nuclear weapons technology is the joint responsibility of the Los Alamos and Lawrence Livermore National weapons laboratories. The weapons hardware research and development and weapons system integration is accomplished by the Sandia Laboratories. This technology is tested under the direction of these laboratories by the team of contractors which operate at the Nevada Test Site. Weapons components are produced at six separate geographical sites and these come together at the Pantex Plant in Amarillo, Texas, for assembly. The administrative management of these components is the responsibility of the Albuquerque, San Francisco and Nevada Operations offices which must continue to be part of the organizational support to the Deputy Secretary for Defense Programs. Likewise the nuclear materials production complex consisting of the Savannah River, Oak Ridge and Hanford facilities are integral to the continued ability to preserve a strong nuclear weapons production capability. The national defense laboratories have a working interrelationship with the weapons production complex and both report to decentralized operations offices in field locations which, in turn, report to the Deputy Secretary for Defense Programs, who has the programming and budgeting responsibility. This unified, integrated system is necessary for the effective discharge of the Department's nuclear weapons responsibilities.

The management concept used in the production of nuclear weapons is unique in the Federal Government. To a large degree, the Energy Department and its predecessor agencies, have depended on private enterprise to accomplish the vast majority of the nuclear weapons production effort. A very small, but highly competent cadre of Federal employees oversees the work of these civilian contractors. With a budget of nearly $6 billion, the DOE Defense Programs employ only 2,100 Federal employees to manage nearly 50,000 contractor employees. By comparison the current Commerce Department has a budget of something less than $2 billion, but it employs some 28,000 Federal workers. It is quite evident that the Federal employees responsible for overseeing the nuclear weapons work must be the best available. I am pleased to note that the administration's bill would make it possible for the Deputy Secretary for Defense Programs to attract and retain the best qualified professional management by providing the authority to exempt certain Defense Programs personnel from normal civil service procedures. Providing excepted service for personnel under the Deputy Secretary of Defense Programs is in keeping with the policy, as well as the spirit and intent, of the Atomic Energy Act of 1954. The authors of that legislation had the wisdom and foresight to anticipate the difficulties in establishing and maintaining a highly qualified scientific and technical cadre of professionals to operate and manage the nation's nuclear capabilities. They understood further that the sensitivity of responsibilities would place special demands on the manner in which they were recruited and in which they were required to perform their duties. In this regard it is essential that authority be given for the Deputy Secretary for Defense Programs to design and implement specialized recruitment and training programs, to have the flexibility to fix starting salaries, promotion requirements and management incentives, and to have the freedom to transfer and reassign personnel consistent with programmatic and security requirements.

Mr. Chairman, I have one other concern which I want to pass on to the Committee. While I do not suggest that a legislative remedy is necessary, I would strongly urge you to consider report language that incorportates the essence of my concern. Today the appropriations for nuclear weapons programs are found in the Energy and Water Development Appropriations Act. I do not pretend to understand why, but we end up trading off nuclear weapons appropriations for somebody's pet water project—a ludicrous situation. The nuclear weapons budget should be reviewed through national security channels; if there are tradeoffs to be made, they should be between warheads and other defense requirements—not between the 155 millimeter artillery-fired atomic projectile and somebody's pork barrel dam project. We should take advantage of the opportunities provided by this reorganization to revamp the programming process for nuclear weapons programs—both within the Administration and here in the Congress.

Again thank you, Mr. Chairman, for this opportunity to present my views to the Committee.

STATEMENT OF SENATOR CHARLES H. PERCY

Mr. Chairman, this committee has already held an initial hearing on the Federal Energy Reorganization Act at which I make my thoughts on the energy reorganization proposal clearly known. I therefore shall be brief. I see some clear advantages to a merger of energy functions with business and trade functions. But I strongly believe that any new organization must reflect a strong commitment to energy R&D and a balanced energy policy. I am hopeful that the bill can be modified to meet this end.

In the past I have been very troubled when the administration has proposed severe cuts in important energy R&D programs. More recently, I have been encouraged by indications that Congress will provide full funding for crucial energy R&D programs such as those being undertaken at Argonne, Sandia, and Oakridge and the other great national laboratories across the country. I will continue to urge my colleagues to support these efforts, and I am hopeful that a commitment to these programs will be reflected in future budget requests by the administration.

The development of all energy sources—including coal, solar, nuclear, alcohol fuels and especially conservation—should be encouraged. The bill as currently drafted, however, establishes an organization with an excessive tilt toward the development of nuclear energy. Although I support the development of nuclear energy, it would be a mistake to tip the scales so far in the direction of this particular technology.

The need for a diversified energy future becomes even more essential in light of growing concern about the spread of nuclear weapons to countries that do not already have them. As nuclear facilities are built in foreign countries, the possibility exists that materials can be imporperly diverted to construct nuclear weapons. If this occurs, the peace and security of the world community and the people of the United States would be threatened. Therefore, we must have—in either an Energy Department or its alternative—a high-level entity that has the capacity to deal with the problems of nuclear non-proliferation.

On September 15, this committee will have an additional hearing that will focus more on this balance question, and, more specifically, on some proposals Senator

Cohen and I will make to establish a more balanced organizational structure. I look forward to airing these issues in depth at that time.

Chairman **Roth**. At 12:15 this afternoon we will have James Lynn, Frank Zarb, and Alexander Trowbridge as witnesses before the committee.

The committee is in recess.

[Whereupon at 10 a.m., the committee recessed, to reconvene at 12:15, the same day.]

AFTER RECESS

Chairman **Roth**. The committee will please be in order.

At this time it is my pleasure to call James T. Lynn, the former Director of the Office of Management and Budget. Former Secretary of the Department of Housing and Urban Development as well as Former General Counsel and Under Secretary of the Department of Commerce. He will be accompanied by James Wilderotter, a former General Counsel of the U.S. Energy Research and Development Administration.

It is indeed a great pleasure to have you here today, Mr. Secretary. I regret and apologize to you and the others for the postponement this morning. But as you well know we are slaves to the Senate. We had 10 votes so I didn't see much sense in proceeding under those circumstances.

Mr. Lynn, as is our custom, you can choose to abbreviate your statement but it will be included in its entirety as part of the record, if you would choose.

TESTIMONY OF JAMES T. LYNN, FORMER DIRECTOR, OFFICE OF MANAGEMENT AND BUDGET, FORMER SECRETARY, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, FORMER GENERAL COUNSEL AND UNDER SECRETARY, DEPARTMENT OF COMMERCE, ACCOMPANIED BY JAMES WILDEROTTER, FORMER GENERAL COUNSEL, U.S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

Mr. **Lynn**. Because it is relatively short, Mr. Chairman, I would prefer to read it. I will say, I appreciated your putting it off because we can do it without the interruptions, so that from our own perspective it is better to do it this way as well.

I am pleased to respond to the committee's invitation to testify on S. 2562, the proposed "Federal Energy Reorganization Act of 1982." I am particularly pleased to contribute—as the Chairman's letter to me requested—my "views on the administrative and management implications of this proposal in light of my experience as the Director of the Office of Management and Budget."

I would also mention that I bring another perspective to S. 2562, in that one of my other prior government "incarnations" (in 1971 through 1973) was as the Under Secretary of Commerce—a position I note with some chagrin, or perhaps I should say nostalgia, would be abolished under section 709(d) of S. 2562. I trust that section 709(d) is no reflection on the perforance of past Under Secretaries of Commerce, but is merely a further implementation of Reorganization Plan No. 3 of 1979.

With me today is my law partner, James A. Wilderotter, who brings the additional perspective of a former General Counsel—in 1976–77—of the U.S Energy Research and Development Administration, one of the organizational predecessors of the Department of Energy. I might also add in that regard, Jim was also my assistant over at the Commerce Department.

We will both be available to answer any questions the committee may have with respect to our statement.

I support the enactment of S. 2562, the proposed "Federal Energy Reorganization Act of 1982."

Is the legislation perfect? Of course not!

Can S. 2562 be improved? It can, and as many members of this committee have already stated, it will be improved as it proceeds toward enactment. The committee's hearings today are an important step in that direction.

But is the idea of dismantling the Department of Energy, and transferring most of its components to other agencies, primarily to the Department of Commerce, a basically sound one? I think it is.

In my judgment, the case has already been made very well in the June 24 testimony of Secretary Edwards, Secretary Weinberger, Secretary Baldrige and Deputy OMB Director Wright about why, once a decision has been made that there should not be a cabinet-level department devoted solely to energy, the constituent parts of what is now known as the Department of Energy should be distributed as S. 2562 would reassign them.

I agree that energy is part of the overall economic, business and international trade landscapes—already the major responsibilities and concerns of the Department of Commerce—and therefore most of the Energy Department should properly be transferred to the Department of Commerce. Those aspects of DOE dealing with resource management should logically be—and are under S. 2562—transferred to the Department of the Interior.

The weapons program should remain under civilian control, and should be in the same organizational location as the nuclear research, development and demonstration programs—hence, they also should go to the Commerce Department, as S. 2562 provides. The Federal Energy Regulatory Commission should once again become a truly independent body, as was the Federal Power Commission until 1977. The alcohol fuels program makes sense in the Department of Agriculture. Finally, the Department of Justice is the proper place for such enforcement matters as may be remaining from the period of energy price and allocation controls.

Mr. Chairman, I think it is fairly easy to agree on where the constituent parts of the Department of Energy should go, if it is decided to no longer have a Department of Energy. Distributing the pieces is the easier question.

The hard question—and the one to which I want to devote my attention today—is whether we should have a Department of Energy at all.

I am mindful of the arguments raised that the dismantling of the DOE will represent a "downgrading" of the energy crisis, a retreat from our international obligations, an admission of failure and merely the substitution of one inefficient department for another. I am also aware that some have questioned the savings to be obtained under S. 2562, and have argued that it will only create a top-heavy, "Rube Goldberg" structure at the Department of Commerce.

These are all important questions—the people who ask them are sincere in wanting to ensure a proper governmental role in energy matters—and they are, I know, the major issues with which this committee is now concerned.

In my judgment, a little history and perspective are important in considering whether a separate Department of Energy is still necessary.

The DOE was established at a time and in an atmosphere of continuing energy emergency—and when energy crisis management was assigned the urgency of "the moral equivalent of war." The Department of Energy Organization Act of 1977 combined into one institutional structure, under "one roof"—albeit in some dozen or so different locations around the Washington area:

The former Federal Energy Administration—which was responsible primarily for administering the petroleum price and allocation controls;

The Federal Power Commission—responsible since the 1930's for regulating interstate gas and electric utilities;

The Energy Research and Development Administration, which had itself been established only a few years earlier to combine in one place the numerous research, development and demonstration programs previously scattered in the Atomic Energy Commission, the Interior Department's Office of Coal Research, the National Science Foundation, the Department of Transportation and elsewhere.

It was always apparent to everyone—even we in the Ford administration, for it should be remembered that President Ford proposed the establishment of a Department of Energy shortly before he left office—that policy development and implementation in DOE could fall victim to the cardinal rule of public administration, that "operations drives out policy."

We were concerned that the regulatory functions—which by definition are extremely short term in nature—and the research, development and demonstration functions—by definition, fairly long term in nature—were simply incompatible, and that the leadership of a Department of Energy would be so preoccupied with getting unleaded gasoline to the service station at Market and Vine by next Tuesday, or home heating oil to Boston by September, that a solar photovoltaic technology for the 1990's or a fusion reactor for the year 2010 would be vulnerable to inattention, postponement, or even worse, to "on-again, off-again" action in response to changing fads or fancies.

Unhappily, our concerns were realized when the Department of Energy was organized.

Regulation—the "operations" side of DOE—drove out, or at least moved to the far "back burner" (a perhaps ironic phrase) the research, development and demonstration policies, plans, and actions necessary for the United States truly to have a—pardon the pun—"light bulb at the end of the tunnel."

The regulatory emphasis of DOE was apparent even in the first appointments to the new department: The Deputy Secretary of

Energy position—the day-to-day manager of the Department—was assigned to a regulator; and the Under Secretary position, which was originally to have been responsible for research, development and demonstration (the old "ERDA" functions), was almost immediately downgraded in the organizational hierarchy.

The results were predictable. The Department of Energy's institutional character—its mentality, its modus operandi, its public perception—became that of a super-powerful, cabinet-level regulatory agency.

DOE's character and perception as a super regulatory agency in turn nurtured the false—but dangerously "self-fulfilling"—notions that a paternalistic government somehow has—or represents—the answer to all of our energy problems, that the first place to look for "relief" from any problem is to Uncle Sam, and that regulation by Federal employees in Washington is an efficient and socially acceptable substitute for the free market.

If the DOE's regulatory programs and activities had not been so misguided, so ineffective and counterproductive, perhaps the damage would not have been so great. But as it happened, the Department of Energy became not a symbol of the United States Government's commitment to energy independence, or even a symbol of the importance assigned to energy in the governmental scheme of things, but rather, a symbol of intrusive and ineffective Government meddling at its worst.

The reality of what DOE had become was made manifest in the summer of 1979—the last time we had gas lines—when, in the judgment of many—including, I should add, many individuals at this end of Pennsylvania Avenue—the Department of Energy's regulatory programs were exacerbating rather than mitigating the situation.

Although President Reagan and Secretary Edwards have made a notable start in eliminating or reducing DOE's burdensome, inefficient or counter-productive regulations, one need only look at the confusion and ineffectiveness with which the DOE has been attempting to end the Entitlements Program for testimony to as DOE's inability completely to overcome its regulatory mindset.

DOE was once described—accurately, I'm afraid—as a "seebed of future regulatory initiatives," and the Department's regulatory programs only confirm the sage comment of my former colleague in the executive branch, now your colleague in the Senate, Daniel Patrick Moynihan, who once noted that "the Government has no constructive power of self-destruct."

Still, we don't want to "throw out the baby with the bathwater." In my judgment, it is time to begin again, and to "reinvent" the manner in which the Federal Government carries forth and discharges its responsibilities in the energy area. These responsibilities are important and they are continuing—they include encouraging new energy technologies (including conservation), developing national energy policies, collecting and analyzing energy information, discharging international energy functions, maintaining energy emergency preparedness, safeguarding and wisely exploiting our scarce energy resources, and the like.

S. 2562 recognizes that these are legitimate, necessary and continuing responsibilities of the Federal Government and provides for them accordingly.

The assignment of most of these responsibilities to the Department of Commerce will in no way diminish the Federal Government's commitment to energy matters. We do not need to have a separate Department of Energy simply to prove that "we care about energy"—any more than does every interest group in America need a "Special Assistant" position on the White House staff or a Congressional Committee or Subcommittee formed in their honor to administer to their special needs.

Energy will, under S. 2562, retain its seat at Cabinet meetings; the senior Federal official responsible for energy affairs will continue to have direct access to the President. Our allies should, if anything, be heartened by our decision to handle most energy matters within the business, trade, and general economic contexts in which they more properly belong.

When the Department of Energy was established in 1977, the Congress itself—in the "Sunset Provisions" of the DOE Organization Act—called for a "second look" in 1982 at the wisdom of what it had done. The administration and the cosponsors of this bill have taken that "second look," and S. 2562 is the result. It is a commendable effort and a prudent, timely, and reponsible proposal to "reinvent" the means by which the Federal Government carries forth its continuing and appropriate responsibilities in the energy area.

Mr. Wilderotter and I will be happy to answer any questions you may have about this statement.

Chairman **Roth**. Thank you, Jim.

Why don't we proceed with questions with you and then we will move to Mr. Zarb, if he is here, and Mr. Trowbridge.

One of the criticisms that you made and others have made is that the Department of Energy has not been well run. We are putting these responsibilities into the Commerce Department which traditionally has not had a reputation for being a strong department. Do you think there are the managerial skills and the in-house expertise to undertake what admittedly is extraordinary complex task?

Do you see the management talent in Commerce available for this mix of responsibilities?

Mr. **Lynn**. Yes, I think so. You cannot always assure that over time in any department or agency. Administrations come and they go and I must say that it is more a matter of what priority is assigned to management and the particular people that you get in a particular job that decides that.

My impression of my old department, if I can put it that way, is that Malcolm Baldrige has been moving quite effectively in that area of management. I do think with some of the reorganization that occurred in that department over a course of recent years—in the movement of establishing the Under Secretary roles in international trade and with Assistant Secretaries under that—that we have seen an opportunity that has been taken advantage of to better managing those areas.

I think the work of the administration part of Commerce, and the work of the Inspector General in that department, are all salutory. But I will go back to say I think that is because Secretary Baldrige, although he has been tied up on policy matters tremendously in his own job as all Secretaries do, has said this is going to be a priority.

I do know that Joe Wright considered that to be a very high priority and took a number of management initiatives.

Chairman ROTH. There has been a lot of discussion about potential savings from the reorganization. Do you believe there can be significant savings through this merger?

Mr. LYNN. I have to say I have not studied as an OMB Director would or as Associate Directors the "dotted I's or crossed T's" of the amount of savings that are available. My guess is there will be some savings available with no programmatic changes because, as you do a reorganization, it forces a hard look at the structure of decisionmaking, the structure of carrying out operations and so forth and there will be some savings.

But I will say two things in this regard. First, I am always chary of estimates high or low in this regard. Second, and the thing I care to really emphasize, is that I do not believe that it is the cost savings that should drive this decision.

I would say that even if it cost a little more, which I don't believe will be the case, that it will save some, I would still be proposing this move because cost savings could be realized given a real push in the Department of Energy itself one way or another, maybe by cutting off personnel and forcing you to do it otherwise. But I would put cost savings as a very much lower priority than I would simply the basic wisdom of combining our business trade, international and economic side with the energy programs.

Chairman ROTH. You may recall, Jim, back when the Department was created, there was a great deal of discussion about the lack of adequate statistics with respect to prices availability, oil, gas, and other things. That became very controversial, as you may well recall.

Mr. LYNN. I do indeed.

Chairman ROTH. Do you see this reorganization dealing adequately with that problem?

Mr. LYNN. I noticed that if you look at total words used in the reorganization bill there are probably more words devoted to this than almost anything else I can think of in the bill, which indicates to me that some people have given some real hard thought to that very issue—and that gives me some comfort. Anything that comes out of the fire that is evident in the development of that language ought to be pretty darn good.

Second, let me make a general observation that one of the major roles historically of the Commerce Department over the years has been that of gathering of information and statistics. Whether it is in census, whether it is in the economic research area, the publication of statistics, they have a long history and I think a good deal of credibility on the economic numbers side, which I think will help both in the techniques of collection, the interpretation and the general credibility that statistics out of Commerce have generally enjoyed.

Chairman ROTH. One of the criticisms you hear of the proposal, particularly the earlier drafts of the reorganization, was that it would concentrate too much on traditional types of energy, oil, gas, and nuclear, but would not emphasize sufficiently either conservation or the more exotic forms of energy such as solar. What is your opinion of that? Have you had a chance to look at this reorganization from that standpoint?

Mr. LYNN. Yes, I don't believe that it will adversely affect that at all. In fact, I would say that in the decisionmaking process of trying to see what technologies do afford real promise, the application of those technologies should, if anything, be enhanced in Commerce. As I say that, I think about organizations such as the National Bureau of Standards which I have a good deal of respect for, at least during the days when I was there. I don't know whether it has gone on to new heights or has come upon sad times since then.

I would hope that it kept the level of excellence that I saw in that shop when I was there and that would be my assumption. But there are people in NBS who have expertise in various areas that could be useful, it seems to me. There are general scientists who can look at and properly evaluate certain scientific aspects of these newer technologies, for example, at the present time at least in NOAA there are people, it seems to me, who have expertise who can be brought to mind.

In doing the economic studies to see what kind of promise the various technologies have and the realism of trying to see what kind of an overrun you are actually going to have in 2 years or 5 years out, there are people that have had experience in developing the numbers and developing project costs that I think will be very useful.

I do not see that diminishing in any way. I think it will have a very hard, fair analytical look, just like anything else they are going to be doing in this area.

Bear in mind, also, I might say, Mr. Chairman, given the organizational structure that has been provided in this bill, there are going to be people at the top of this organization looking very hard at all the responsibilities that have come over. In many respects, I use the word "dismantling" but as Chairman McClure has said, this is truly a merger. It is dismantling in the sense there would no longer be a Department of Energy but it is a merger of many of the functions and I have to say I think it is a merger in many respects of things that have like elements, as opposed to a conglomerate type of merger.

Chairman ROTH. Do you feel that the Secretary has been given enough flexibility to manage and effectively operate the department or do you think it appears too inflexible a structure?

Mr. LYNN. In what respect, Mr. Chairman?

Chairman ROTH. Let's say based upon experience 6 months or a year down the road, you want to restructure some of these things, do you think you ought to have that authority?

Mr. LYNN. My substantive, nonpolitical, answer would be yes, indeed. I am a great believer in pinning responsibility on the person at the top and giving that person and the President of the United States terrific flexibility in how they carry out their jobs.

And I want that coupled with strong oversight by the committees in the Congress who give them the devil if they don't carry out the job well.

I at least know during my 8 years in government there didn't seem to be a lack of enthusiasm on the part of the Congress to do that. That is my substantive answer. My political answer to you would be I would be inclined to leave those provisions of the act alone until people got used to the idea at least of this being in the Department of Commerce and then consider that question it if were brought before you by a Secretary of Commerce.

I must say that back in the good old days when we had strong people in these various jobs, we ran the Department of Commerce—and I have Sandy sitting next to see and he knows well—with just a Secretary and a lonely Under Secretary at the level 3. It is like I used to say, why do we need two case editors at Harvard Law Review—we managed to do that with one. Now I find we have in this Department where this is all done, three people at a level 2, which is the same level as the Chairman of the Federal Reserve Board, the Director of OMB, and the same level of pay as Senators of the United States.

I would dare say, we are giving this subject a very high and potent role within this Department. I am not saying I disagree with that. I am just saying for matters of emphasis, it indeed shows Congress putting an impression upon this merger, if you will, that we consider the energy functions extremely important and intend to see that they are carried out as extremely important functions when housed in the Department of Commerce.

Chairman ROTH. Jim, my last question would be, Do you have any suggestions to offer on implementing reorganization plans of this magnitude? Should we expect the administration to present detailed reorganization plans to Congress before we take action on this legislation?

Mr. LYNN. One of the things that concerns me a little in that respect is the matter of timing. It is one thing to get a general outline as to what the Secretary has in mind, but to ask the Secretary to present to the Congress in detail each box of where it is going to be, is asking a lot because I have a hunch that as the Secretary and the people that are coming over and the people in the Department really get down to some of these positions, below the ones that are in the statute, they are going to have some innovations and some ideas and therefore to be locked into a detailed plan when they get the authority would be a mistake.

I think to inquire of them as to what degree of thought they have given as to any level that a Congressman or a Senator on a committee has as an interest in is perfectly appropriate. But I do not think I would want them to have to put in concrete the dotting of the I's and the crossing of the T's until they have had a little time to get better acquainted in a working sense knowing this is going to happen.

Chairman ROTH. Jim, I appreciate very much you and Mr. Wilderotter being here today. More work will be done on the legislation by this committee before we act upon it but I would like to feel free to call upon you for your views and counsel.

Mr. Lynn. I am sure Jim joins with me in saying that it would be our pleasure, Mr. Chairman.

Chairman Roth. Thank you very much.

Mr. Lynn. You are welcome.

Chairman Roth. At this time it is a great deal of pleasure to call on you, Mr. Trowbridge to speak on behalf of the National Association of Manufacturers. Mr. Trowbridge served at the cabinet level under President Johnson, so he brings to our hearing a broad background of experience and understanding both from the private side and the public side. Indeed, it is a pleasure to have you here, Mr. Trowbridge.

TESTIMONY OF ALEXANDER B. TROWBRIDGE, PRESIDENT, NATIONAL ASSOCIATION OF MANUFACTURERS

Mr. Trowbridge. Thank you very much, Mr. Chairman, I am very pleased to have this opportunity and I would like to read a relatively short statement and then take whatever questions you may wish to pose to me.

I do serve as president of the National Association of Manufacturers. As you mentioned, I did serve in the mid-60's under President Lyndon Johnson as Secretary of Commerce during 1967 and 1968.

I would like very much on behalf of NAM to commend the committee for holding these hearings and thank you, sir, and your staff for giving us the opportunity to express our views on the advantages of merging the Nation's energy programs with existing commercial activities and the related aspects of a market approach to energy functions.

The NAM, I think as you know, is a voluntary membership organization of roughly 11,000 companies, which employ a majority of the country's industrial labor force and produce over 85 percent of the Nation's manufactured GNP. The association is affiliated with an additional 158,000 businesses through the National Industrial Council and NAM's Associations Department.

The industrial sector of the American economy represents the largest single group of energy users in the United States. As a representative of industry, NAM is concerned with the issues and legislation in the energy area currently pending or under active consideration.

We are particularly interested in the development of a national energy policy that recognizes the inextricable link between the production, development, consumption, and regulation of this country's energy resources and a sound national economy.

Recognition of this link between energy and the economy is crucial; in fact, energy development and supply is one of the most important domestic and international businesses for the United States today.

Federal Government involvement in energy matters prior to the creation of the Department of Energy in 1977 expanded as the oil industry expanded. The major entry of Government into energy policy, preceding the Department of Energy formation, was in 1971 when the wellhead price of crude oil became subject to regulation following the imposition of Federal wage and price controls.

Predictably, following extension of those controls in 1973, domestic oil and gas exploration and production declined, giving rise to increasing U.S. dependency on imported oil. The Arab embargo, however, provided a rude awakening for Americans who had grown accustomed to plentiful, inexpensive energy supplies.

The Federal Government, of course, increased its role in the energy economy substantially following the shortages of 1973 and 1974, and creation of the Department of Energy carried Government management of energy policy and markets even further.

The Department of Energy was created in 1977 as the successor to the Federal Energy Administration which had its roots in the Federal Power Commission's authority to regulate interstate natural gas sales and in the 1971 controls on crude oil and natural gas prices. At that time the prevailing philosophy seemed to be that the more serious a problem, the more it required a governmentally imposed solution. The Department of Energy provided a means of extensive Federal intervention in every aspect of energy production, supply and price, especially during the fuel shortages of 1978 and 1979.

More recent history has shown, following gradual decontrol of crude oil prices, that the marketplace provides incentives for domestic energy development and production and generally insures that the country's limited capital resources are invested in the most cost-efficient manner. Previous Government policy created distortions in the market by subsidizing inefficient programs and promulgating regulations which inhibited industry's exploration and development of additional energy sources. An economic philosophy which will provide for increased energy production through free market incentives will necessarily sort out the most efficient and cheapest energy alternatives.

A combination of the Departments of Energy and Commerce will help restore the Government's role in energy policy to its proper perspective; and that role should be primarily supplemental. The Federal Government can best coordinate energy and economic policy by promulgating only those regulations that are both cost effective and necessary and by encouraging management and development of the Nation's energy resource base in the most efficient manner. Consumer requirements and market factors should provide the major motivation for commercial energy development. Energy is primarily a factor of production, subject to the same play of forces as other economic factors.

From the perspective of those who view energy as a key component of American business—and it would be difficult to deny that it is—the Department of Commerce is the most logical place from which to maintain those core Government energy functions. Those remaining programs fit naturally with the mission of the Departments of Commerce and Interior. The Department of Commerce has a particular understanding and broad expertise in business, trade, industrial, and consumer economics and those energy issues related to and affected by these areas are most closely akin to commerce-type programs.

Combining overlapping functions of the Departments of Energy and Commerce such as information collection, energy and environmental research and development, nuclear trade regulation, and energy-related business analysis would recognize energy as a major domestic and international business logically housed within the Department of Commerce. Such a move would also strengthen the ability of the Department to promote U.S. energy products in the domestic and international marketplace, develop a combined energy/economic policy, and serve an increasingly energy-dependent American industry.

This might be a good opportunity to point out that, in combining our Energy and Commerce Departments, we would be following the lead of 16 of the International Energy Agency nations who have found it much more practical to combine energy policy and management with ministries of industry, commerce, or trade. By integrating DOE functions with these areas, we can hope to see an expansion of international U.S. energy products in the marketplace.

One other consideration is that since Commerce is already responsible for strategic minerals planning and emergency allocation, the transfer of emergency preparedness activities would consolidate Federal policy planning for all strategic resources and integrate Commerce expertise in industrial analysis in the event of energy supply disruptions. Voluntary industry cooperation and allocation of the strategic petroleum reserves in the event of a disruption in supply would also be more logically managed through Commerce because of its longstanding relationship with the business/industrial community.

Finally, the transfer to the Department of Interior of natural resource-management programs such as the Power Marketing Administration, Coal mining research and development programs, and residual energy leasing responsibilities will consolidate energy resource management in the Department already responsible for the stewardship and development of the country's energy-related natural resources.

Let me conclude my remarks, Mr. Chairman, by recognizing that the proper Federal role in energy policy as envisioned in this legislation will include provisions for reviewing Government regulations to insure that they are cost effective and not burdensome. It will provide funds for long-term research and development and permit environmentally acceptable access to public lands for energy exploration.

We think that the President should be allowed to organize his administration in the most cost-effective manner he can propose and to combine those functions which lend themselves to consolidation. That is the purpose of this proposal, as you well know, and on balance we believe it is supported by fact and organizational soundness.

In the final analysis, energy is an important part of business. Those who are responsible for the development, production and distribution of energy will fulfill their functions most efficiently and effectively if the basis for a national energy policy is acknowledgement of the economic realities of the marketplace. An effective way to do this is through the integration by the Department of Commerce of the major Department of Energy functions. This will maintain energy's status at the cabinet level and focus Federal attention on energy policy as an essential part of the overall economy.

Thank you, very much.

Chairman ROTH. Thank you, Mr. Trowbridge.

As you know, the criticism has been made that the merger of the Department of Energy into Commerce is a signal that the energy policies are not particularly important at this time.

I wonder, as president of NAM, what is your views as to long term outlook on energy of various types for this Nation's economy?

Mr. TROWBRIDGE. Mr. Chairman, let me comment, if I might, on the first point that you raise and then deal with the second.

The phenomenon of whether this would signal some sort of downgrading of energy as an important public policy issue is one which I have been concerned about in this proposal because, indeed, energy is, and will continue to be, a major national resource area of policy concern. I don't know whether it would be wise to think in terms of a name for the combined departments, which would perhaps be the Department of Commerce and Energy. That might be useful as a signal or symbol for public understanding of the continuing importance of energy as a national issue.

I recall the time when President Johnson recommended to the Congress the merger of the Departments of Commerce and Labor in the State of the Union speech which he made before the Congress in early 1967.

At that time we were thinking of a merged department which would have a new name, the Department of Economic Affairs. It was an attempt to give a proper perspective of the merged functions, perhaps describing them more completely. And it may be worthwhile considering the name of this new merged organization, if that is the will of the Congress.

Second, in answer to your question about the energy future of this Nation, we are at the moment under obviously recessionary conditions. There is a surplus both in the petroleum and coal arenas; we are strongly exporting our coal, as you well know.

We are importing a lower percentage of our petroleum I don't think that this is because of greater access to domestic resources but primarily because of the lower demand across the economy.

One of the areas which I am sorry to see in considerable disarray is the nuclear field. It strikes me that this technology is under such attack and question that its availability as a source of energy for domestic use over the years ahead each year becomes decreasingly assured. I am concerned by that, and I think we all ought to be concerned, particularly as we look at the sources of our petroleum imports and the volatility in the areas from which they come.

Prices of energy in this economy are relatively down compared to the high points seen in the era of shortage.

Again, this is a function, I think, of lower demand caused in large part by the slack in the economy. It is also a function of higher domestic production, which I think was one of the results of the gradual decontrol of crude oil prices.

In general, the days in which the industrial consumers had terrific concerns in the shortages of 1973, 1974, 1978, 1979, when they ran into allocations and the whole problem of assurance of supply, seem to be behind us, at least for the moment.

We may well face them again. That is why I mention my concern that the nuclear element of our domestic energy future has come under such attack and has been in effect considerably retrenched.

Chairman ROTH. One of my concerns is that the importance of the energy problem seems to depend upon the situation now. When I think in many ways we ought to be more concerned where we are going to be 10 to 20 years from now.

Has your organization made any studies as to whether or not they believe, for example; let's say, in the 1990's, there would be adequate sources of energy for this country's economy?

Mr. TROWBRIDGE. We, per se, have not, Mr. Chairman, made such a study. We rely on the research work of a number of governmental and nongovernmental organizations, petroleum and other energy-related organizations. But, in terms of a NAM estimate of access to supply and availability of different types of energy sources, we have not made such a long-term study, no, sir.

Chairman ROTH. Basically, whose responsibility do you think it is or should be to insure that in the long term we will have adequate sources of energy?

Mr. TROWBRIDGE. It is a combined function, I am sure, of the private sector and the developments they will make in both new technologies and new efforts at exploration, development, and innovative new forms of technology which they can bring into the marketplace.

This is, combined with a general policy framework which only Government can set, which allows for incentives—and hopefully takes away the disincentives—for the fullest amount of experimentation and sorting out among alternatives in the private energy sector.

I think that the tax policy, regulatory policy, and the question of natural gas pricing and its future deregulation, are the kinds of governmental policy areas that are terribly important to create an environment in which the private sectors can respond with investment dollars and technical skills.

Chairman ROTH. Let me ask you one question beyond that.

I would agree with you that Government has a responsibility to try to create an environment that will promote adequate sources of energy. Assuming that Government does that, can we assume that the market forces are adequate to insure the development of new sources of energy as more traditional forms become in shorter supply?

Mr. TROWBRIDGE. I think we can and indeed rely on Government to do some of the longer range research and development, the more exotic development of new technologies that simply are uneconomic in a near timeframe for private sector investment to go into.

I know that the Department of Energy has played a role in this and I would expect the Department of Commerce will too, using those attributes that Jim Lynn described of economic analysis capability, of scientific expertise in the National Bureau of Standards and the Patent Office, NOAA, and other parts. I think there is a role for Federal Government's sponsorship of long-range, exotic new technologies that probably won't come about very quickly if left purely to the private sector.

Chairman ROTH. Mr. Trowbridge, I appreciate your being here today. Your testimony is most helpful. As I said to Jim Lynn, we look forward to your advice and comments in the future.

Thank you, sir, I appreciate the chance to be with you.

Chairman ROTH. Our final witness today is Frank G. Zarb, former Administrator of the Federal Energy Administration, who I understand was kind enough to return to Washington when he was away in other parts of the world.

Frank, we will include your opening statement in the record in its entirety so that if you don't want to read, it will be part of the record. However you care to proceed.

TESTIMONY OF FRANK G. ZARB, FORMER ADMINISTRATOR, FEDERAL ENERGY ADMINISTRATION

Mr. ZARB. It would probably take me less time to read the statement than to try to summarize it, Mr. Chairman, with your permission, I think I will quickly go through with it and we can get to your questions.

As you know, I have been in this room many times to discuss legislation and it has always been a useful experience. I must admit, coming here today to testify in this subject was not a simple decision. The Federal Energy Organization as an issue is not very interesting. And it rarely attracts much in the way of constituent interest.

This particular legislation has been described in the press in recent days as being virtually dead, a bill without a House sponsor, and people whose views I respect have reported to the Congress that there is no evidence to support a claim that budget dollars can be saved. The conclusion I don't completely agree with.

The Department of Energy as an organization always had very few friends and the plan to change it seems to have fewer. In addition, my recollection of these subjects tells me that Government reorganization always gives rise to emotional jurisdictional questions and tends to use up more political chips than it is normally worth.

Having said all that, let me say in my firm conviction, energy organization in its current state is not sound and to ignore the problem would not be in the best interest of the Nation.

My statement is organized to be brief so we can get to questions and I thought I would lean on some of the earlier experiences of energy organizational schemes.

You will have more than enough technical testimony from administration witnesses.

First, my general conclusion. The Department of Energy was a mistake, a plain, simple, honest mistake. The organization was designed and implemented without a thoughtful national energy concept, without clearly identifying the role for the U.S. Government, so we created an institution without having clearly in mind a mission for that institution to carry out.

It seems to me that the underlying fact which prompted the creation of the Department has always been vague and is vague today.

Since the beginning, the DOE has not worked very well. The last administration initiated it and never really supported it or its top management.

President Reagan has made it clear that the current arrangement doesn't serve the Government's needs and, under those circumstances, this administration is not likely to give it much of a role. Not a very healthy situation and certainly it is not one which will serve efficient government. And, this, I think, is particularly grim since there are some very good people in that Department, both career and political, who are not going to stay very much longer under these circumstances.

It is my view in general that Congress should accept the administration's proposal.

The President has outlined a specific mission for Government in dealing with energy issues of the 1980's and he has proposed an organization designed to carry out that mission.

Unless major fault can be found in either the President's views on the role of Government in energy or flaws in the fundamental organizational thinking—the basic concept he is advancing should be accepted.

I want to bring us back a little bit to the 1970's because it serves perhaps to give a useful backdrop.

When fuel shortages began to develop in the early 1970's, President Nixon set up a Federal Energy Office in the Executive Office of the President. As I recall, Governor Love was the first occupant of that office.

As the problem increased in size it became clear that some form of enlarged Government presence was required—leading to the Federal Energy Administration and the Energy Research and Development Administration.

During that period, I worked with this committee on organizational questions, first as Associate Director of OMB for Management, and later as Federal Energy Administrator. As the energy problem during the first half of the 1970's continued to change in size and shape, and Government organization was modified to cope with the change, the FEA and ERDA with a White House Energy Resources Council as a coordinating mechanism worked quite well.

President Ford used that arrangement to draft the first long-range national energy outline and deal with embargo-related shortages.

The combined organizations had the responsibility to concentrate on immediate shortage crises as well as doing the initial work on longer term issues such as: strategic petroleum reserves, crude and natural gas decontrol, nuclear power and coal production, conservation, and new technology development, to name a few.

Since all of this was happening in a rapidly changing environment, we were not very interested in more permanent organizational structure. It did not make much sense to create a new organization to carry out a long-range Government mission that had not been defined; especially since the existing organization was functioning well.

They were not easy days. We had many frustrations and the policy debate was intense, but the executive branch was reasonably well coordinated, and basic relations with Congress were in good order, even in tbe face of major policy differences.

The administration had major internal arguments but the Energy Resources Council was used to distill issues with a wide range of Government agency participation. For the most part, the executive branch spoke with one voice. The lesson here is that while we as a nation had a problem in finding a consensus to form a national energy policy during an extraordinary period, Federal energy organization was never part of the problem. The creation of the DOE did not contribute to the solution.

It seemed to me at the time that the DOE was a product of an overreaction. The shock of the 1974 embargo and sharp change in energy economics led to some degree of panic. It seemed clear that the Nation was awakened to a new problem which would take many years to solve and that led some to a conclusion that a permanent organization at Cabinet level would be a symbol of sufficient Government intervention to help solve the problem.

The rhetoric of the 1976 Presidential campaign argued that the Government must do more, and since organizational change was easy relative to the more meaningful issues of substance, legislating a new department created an allusion of doing something. But the conditions which justify traditional Cabinet departments were never present to justify a DOE.

Now this administration is advancing a policy which says that energy is one element of the American economy and should be placed in the mainstream of political as well as commercial activities. I cannot find any weakness in that logic. It suggests that an integrated Government focus is needed and not one which continues a separate track for energy.

This is important to show that energy is a vital element in the mainstream of both national and international commercial universe. To have if move separately on its own track does energy itself a disservice.

So here we are at another organizational crossroad. The President has outlined a revised organization to fit his perception of the Government's mission. There appear to be three options:

First, do nothing and leave the existing organization intact.

Second, consider some other form of organization.

Third, accept the President's plan with reasonable congressional modifications.

The notion of keeping a status quo and allowing the existing Department to wither is not very appealing or efficient. What is particularly troubling about this concept is that some very good people will not be properly utilized and probably lost to the Government. Good government or sound energy policy will not flow from the existing machinery.

There are no other serious proposals which would offer a brand new concept for change which is different from the President's—so option No. 2 does not look real.

The third alternative, that is to give the President the organization he wants with modifications which will satisfy reasonable concerns of Congress, seems to make the most sense.

I am informed by some who understand the mood of the Congress—far better than I do—that there is not sufficient momentum to pass this legislation during this Congress. If that is true, it is too bad. The President of the United States should have the ability to reshape those elements of Government to better fit today's requirements while they are still reshapable. An administration should be judged on results, but it cannot be so measured if the tools it asks for are withheld.

Mr. Chairman, I said at the outset that the Federal energy structure is not a very interesting issue nor has it ever been a core element in forging national energy policy. This Nation continues slowly but certainly to evolve answers to longer term energy questions.

Our system of government insists on full debate even if it takes years, and the debate here is not over. But, may I respectfully recommend that the Congress dispose of the organizational issue quickly by adopting the President's recommendation, and get on with the more urgent issues of substance that are far more important to the American people.

Thank you, Mr. Chairman.

Now, may I answer your questions?

Chairman Roth. Thank you, Mr. Zarb.

As one who has been concerned with energy problems for many years and has developed considerable expertise in this area, how do you view the energy outlook for this Nation for the remainder of this century?

Mr. Zarb. I think the outlook is troublesome. It is fraught with dangers, the economics are uneven, it is going to take harmonious relationship between Government and the private sector and some extremely good fortune to avoid major disruptions in the future.

I recall back in the days when we were in a crises we had the attention of everybody, But if today you asked the Secretary of Energy to get the attention of the chief executives of the companies of the United States to focus on the long-term question of energy, he would not likely succeed.

On the other hand, if he were the Secretary of Energy and Commerce, if he is a good fellow, he is going to have more leverage in that conversation.

I am troubled about the future of energy and I think anybody who looks at the real facts should be. But having a separate Cabinet agency that has not worked in the real world will not help.

Chairman Roth. Well, I share your concern both with respect to the outlook and the fact that current organization is not working. I suspect that if there was a disruption because of events in the Middle East we would see energy coming back to the front page and to the attention of everyone and I guess that is the thing that bothers me as much as anything.

I think it is critically important that we move ahead to make this country as energy independent as possible and that we don't take too much assurance from the fact at the moment things are not serious. But I am not certain that I see that being done in this country, either in the private sector or in Government.

The reorganization, or merger, of the Department of Energy with the Department of Commerce certainly, I think, has certain appealing features that it does combine some interrelated matters.

This morning Senator Packwood said that after we created the Department of Health, Education, and Welfare, it seemed to be a conglomorate that was unable to do anything. And we are putting some very heavy responsibilities into a Department that has quite a diverse responsibility already.

I happen to think that the current Secretary is a very able, capable man, but what we are talking about is not just a short-term but presumably a long-term reorganization.

Do you see this making good sense, particularly from the standpoint of trying to develop some long-term policy?

Mr. Zarb. If we really are serious about institutionalizing energy in both Government and the private economy, we must get away from the old notion that the Department of Commerce is not a very influential Department. I have heard that myth for years.

Chairman Roth. So have I.

Mr. Zarb. We have to reshape our thinking and approach these problems with new concepts and new organizations and the kind of people that the current Secretary of Commerce happens to be.

I recall the first efforts to approach the question of long-term conservation, during the mid-1970's.

It was a pretty tough exercise for me as the senior energy officer in administration to be working a separate path with the business community. The Secretary of Commerce should have been right along, we tried our best to coordinate but we didn't.

I would take other responsibilities away from the Department of Commerce and give them energy, so that they can take the long view of this country's energy needs so that one Secretary can mix the private sector's views with Government's action.

Today the DOE is a Cabinet agency sitting there with very little policy influence and certainly not much influence in the private sector.

I would carry that even further to the international community where I now spend most of my time. I wouldn't want to be dealing with the Japanese Minister of MITTI as and the Secretary of Energy of the United States without having the leverage of some other business issues in my basket. Even in the days of embargo crises that I negotiated with these folks and we wanted them to do certain things, my leverage extended only to the energy matters, their leverage extended not only to energy but to trade and investment matters.

I am convinced that institutionalizing energy means putting energy into one of the more traditional Cabinet agencies and the Department of Commerce looks best, and if we have to reshape the Department of Commerce and some of our old-fashioned thinking about its value to this Nation, then that is what we should do.

Chairman Roth. I am a believer that probably there are some functions we can take away from Commerce but for the reasons you say I think there is great merit to combining energy programs with the Department of Commerce.

I might say I was also glad to hear you publicly acknowledge there are a number of capable people in that Department. I think we do an injustice to many of these people who are able but suffer from an inadequate organization in which to work.

Going back to the question of long-term plans, one of the concerns that has been expressed by a number of commentators is that reorganization will work against solar, renewable, synthetic fuels, and in favor of more traditional oil, gas, and nuclear.

Do you see that this problem is inherent in this reorganization? And if so, what should be done? Or how important do you see these alternate sources as well as conservation?

Mr. Zarb. Well, the final analysis organization is going to have very little impact on the emphasis placed on advancing technologies.

It really depends on the President, the mood of the country, the Congress, budgets deficits, and so on.

I would have to opt in favor of it being tied to a Department of Commerce to get the most influence. I would hate to have to carry the message today to the business community as Secretary of Energy that they should be putting more of their resources into solar energy.

I would feel more comfortable as Secretary of Commerce and Energy, having looked at the balance of fundamental economics involved. So I think if we are going to tie the two together, Government and private sector to get new technologies moving, then it is best done through a combined agency, assuming we have a good Cabinet Secretary.

I wish Senator Glenn was here today because I recall my OMB days when NASA was one of my clients. It seems clear to me if we had a Cabinet-level Department of Space Administration we probably would not have a Space Shuttle today.

We had the right size organization to get that job done and it tapped right into the private sector to do it. America's energy is also a business that is tied closely to the private sector. We are not going to jam it down the throats of the private sector and, Mr. Chairman, the U.S. Government does not have the ability to do it alone.

It is going to require some harnessing of non-Government forces and that is best done through a traditional agency.

Chairman Roth. One criticism heard made in the private sector, particularly by our universities, is that in recent years Government laboratories have taken over more and more of the research and development under various grounds and excuses.

Would you have any perspective on whether or not we are adequately utilizing universities and others in the research and development of the fuels?

Mr. Zarb. I don't have a current measure of that. It has always been a problem. The National Science Foundation was an excellent vehicle at one point for us to make sure we were utilizing the private universities for special purpose research.

I think probably we are not using the brain centers of the country as well as we could and that is an area that needs some attention.

Chairman Roth. I share that conclusion, that concern.

My final question would be with respect to the Federal Energy Regulatory Commission, which will be recognized, and stand as an independent entity to continue implementing many of the energy regulatory programs.

Do you believe that FERC has done a good job since it was established in 1977, and should some of its responsibilities be consolidated in a Cabinet-level department?

Mr. ZARB. I think it has done as good a job as could be expected under the circumstances. It inherited a body of regulations which were borne out of the mid-1970 crisis, most of which I helped write, or at least approved.

It was a hodge-podge of stuff that we had to create instantly and they inherited all of that. I think under those circumstances they did all right. It would seem to be energy regulations—assuming we are going to have natural gas deregulation soon—are going to be limited and it would be my judgment that FERC ultimately will fade into one of the Cabinet agencies when its need to stand alone no longer exists.

I know you said the last question, Mr. Chairman, so I would like to add a last answer, if I may, even though the question wasn't asked.

As I move around the world these days it is clear that we face challenges which are extraordinary. The old responses are no longer adequate and when they are tried they fail. Here Congress has a very simple, very small issue in a great big universe that is, how do we design the energy organization so it works better for the future?

How do we institutionalize energy so it becomes part of the mainstream of our Nation's activity? It makes me a little sad to see this issue get buried, at least for the remainder of this Congress and I am not sure about the next Congress. We have an opportunity to take a small step forward and do something that is meaningful—and it probably will not happen, for lack of interest.

Thank you.

Chairman ROTH. Thank you, Mr. Zarb.

As I said, earlier, I apologize to you and the others that we postponed the morning session, but we had consecutive votes.

Thank you for coming this afternoon. I appreciate it.

The committee is in recess.

[Whereupon, the committee recessed at 1:30 p.m., to reconvene at the call of the Chair.]

FEDERAL ENERGY REORGANIZATION ACT OF 1982

WEDNESDAY, SEPTEMBER 15, 1982

U.S. Senate,
Committee on Governmental Affairs,
Washington, D.C.

The committee met at 10 a.m., in room 3302, Dirksen Senate Office Building, Hon. Charles H. Percy, presiding.

Present: Senators Percy, Cohen, Mattingly, Eagleton, Jackson, Glenn, and Levin.

OPENING STATEMENT OF SENATOR PERCY

Senator Percy. We want to welcome our guests and witnesses this morning. Senator Cohen, we are glad you are here to start off these hearings.

Today's hearings of the Senate Committee on Governmental Affairs is the third in a series of hearings on the Department of Energy Reorganization bill, S. 2562.

During past hearings, I have noted that there are some clear advantages to the merger of energy functions with business and trade functions, as proposed by the administration. However, such a merger must be carried out properly. It must maintain the national consensus for a balanced energy policy and the strong commitment to energy R&D which has developed over the past decade.

As currently proposed, the reorganization seems to place too much emphasis on nuclear power at the expense of such other energy sources as coal, oil, gas, solar, biomass, and conservation. I have long been a supporter of nuclear energy, which plays such a key role in the State of Illinois, but balance and diversification are what we need, certainly, in developing an energy policy for the future and an organizational structure to carry out that energy program.

I recognize that moving boxes around will not, by itself, guarantee the kind of emphasis our energy policies should have. This must be accompaned by reasonable budget levels and a commitment to pursue programs mandated by Congress. Over the past 2 years, we have seen the disintegration of many of our most effective conservation and fossil energy programs due to fiscal uncertainties and the shuffling of key personnel.

As we approach the start of a new fiscal year, it is time we stabilized these programs and get them working effectively again.

The administration has downgraded conservation, solar, and fossil fuel functions in its policy priorities, in its budgets and its proposed new organization chart. This is based on the premise that the free market will adequately take care of these technologies. To some extent it will, but in other important ways, it will not.

Much of the recent reduction in energy consumption is due to our current—and, let us hope, temporary—economic problems. For example, a recent report showed that electricity consumption is down almost 4 percent this year in the Midwest, but it is up in Western States whose economies are faring better. Likewise, our coal industry is stymied as much by a lack of effective research into new, cleaner combustion technologies as by current market conditions.

Senator Cohen and I are offering an amendment to the administration's reorganization bill which will correct many imbalances and, we think, will go a long way toward building a consensus in support of this legislation.

I would like to use some color coded charts to show what we are trying to do. The first two charts show the current DOE organizational chart and the Administration's reorganization proposal. Note that the nuclear energy programs, which are shown in green and blue, have been significantly upgraded under the administration's proposal. Conservation and fossil fuels, shown in yellow and orange, are actually downgraded. The third chart on my left—your right—shows the organizational structure that Senator Cohen and I are recommending. It accommodates the administration's desire to have a merged Department—which we would suggest calling the Department of Energy and Commerce—while maintaining the existing balance among the various energy technologies.

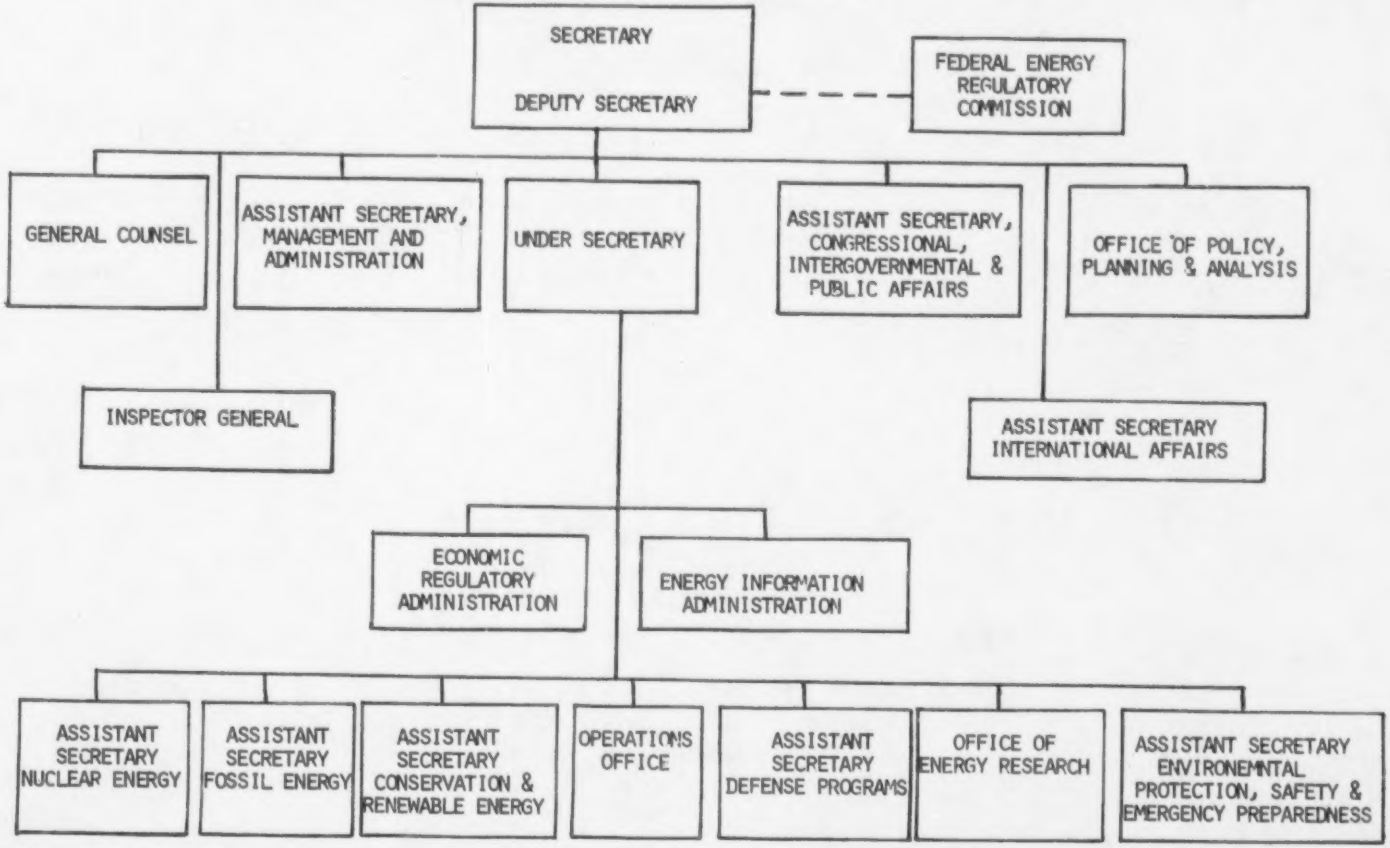
Finally, I would like to see some new thought and extra emphasis given to the very serious problem of nuclear proliferation. Certainly, the State Department, in recognizing the importance of this issue by the announcement made yesterday that Under Secretary of State Kennedy, who has been devoting himself to management and nonproliferation, will devote himself exclusively to the problem of nonproliferation. The State Department is placing a full time Under Secretary, as top administrator, on the problem of nuclear proliferation.

I think we have to treat this as a real security issue rather than a nuclear technology issue as the administration proposes.

I would like to thank the committee chairman, Senator Roth, very much indeed for providing us with the opportunity to hold this hearing today. He has often stated his own concern that our energy policies give adequate priority to conservation, solar energy and other alternative energy sources. I look forward to working with him to make sure this is reflected in any reorganizaton bill approved by the committee.

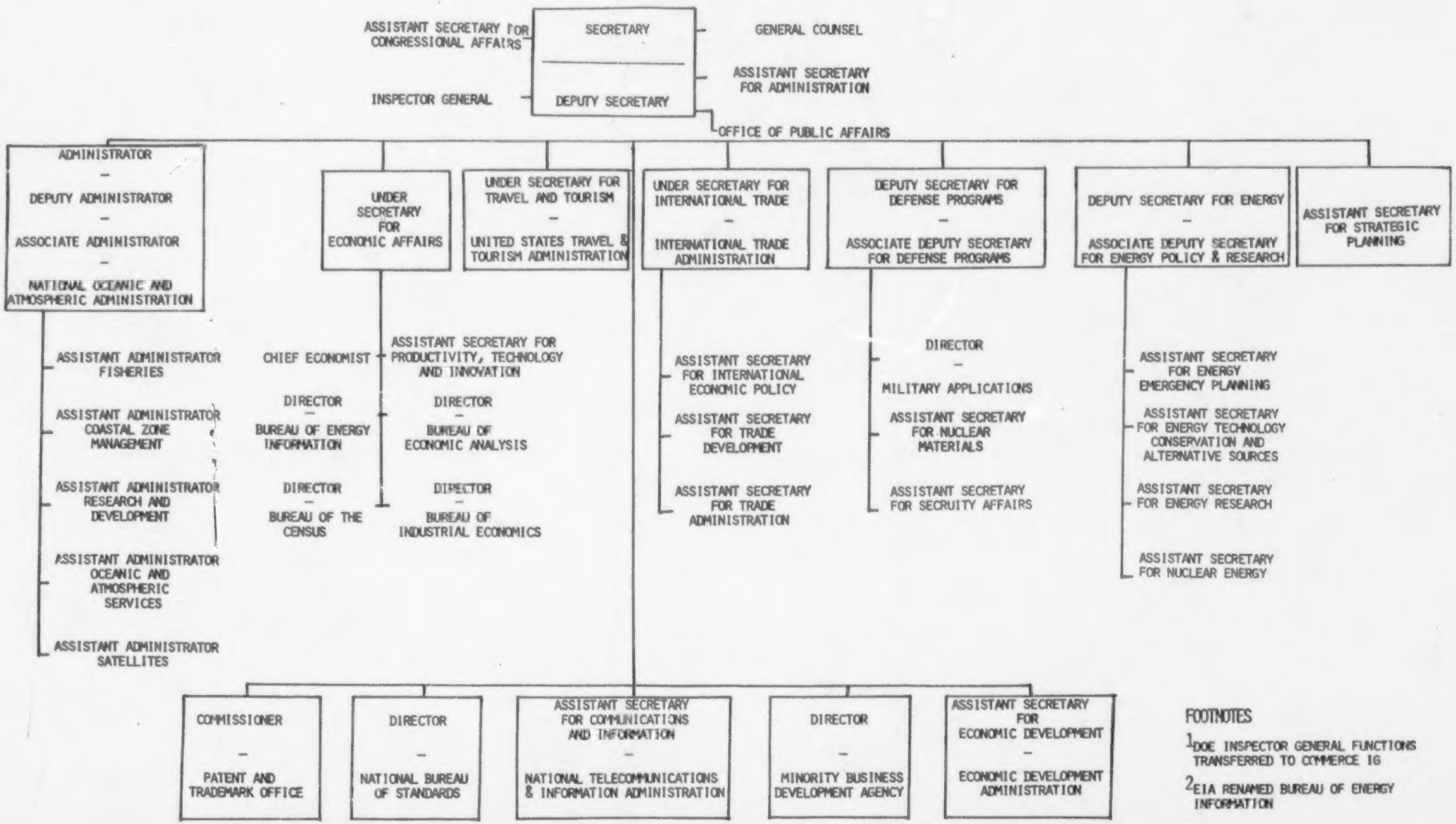
[The charts referred to and a summary of the Senator Percy and Senator Cohen amendment follow:]

CURRENT ORGANIZATIONAL STRUCTURE OF DEPARTMENT OF ENERGY


SECRETARY
DEPUTY SECRETARY
FEDERAL ENERGY REGULATORY COMMISSION
GENERAL COUNSEL
ASSISTANT SECRETARY, MANAGEMENT AND ADMINISTRATION
UNDER SECRETARY
ASSISTANT SECRETARY, CONGRESSIONAL, INTERGOVERNMENTAL & PUBLIC AFFAIRS
OFFICE OF POLICY, PLANNING & ANALYSIS
INSPECTOR GENERAL
ASSISTANT SECRETARY INTERNATIONAL AFFAIRS
ECONOMIC REGULATORY ADMINISTRATION
ENERGY INFORMATION ADMINISTRATION
ASSISTANT SECRETARY NUCLEAR ENERGY
ASSISTANT SECRETARY FOSSIL ENERGY
ASSISTANT SECRETARY CONSERVATION & RENEWABLE ENERGY
OPERATIONS OFFICE
ASSISTANT SECRETARY DEFENSE PROGRAMS
OFFICE OF ENERGY RESEARCH
ASSISTANT SECRETARY ENVIRONEMNTAL PROTECTION, SAFETY & EMERGENCY PREPAREDNESS

PROPOSED

U.S. DEPARTMENT OF COMMERCE


SECRETARY
DEPUTY SECRETARY
ASSISTANT SECRETARY FOR CONGRESSIONAL AFFAIRS
INSPECTOR GENERAL
GENERAL COUNSEL
ASSISTANT SECRETARY FOR ADMINISTRATION
OFFICE OF PUBLIC AFFAIRS
ADMINISTRATOR - DEPUTY ADMINISTRATOR - ASSOCIATE ADMINISTRATOR - NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
ASSISTANT ADMINISTRATOR FISHERIES
ASSISTANT ADMINISTRATOR COASTAL ZONE MANAGEMENT
ASSISTANT ADMINISTRATOR RESEARCH AND DEVELOPMENT
ASSISTANT ADMINISTRATOR OCEANIC AND ATMOSPHERIC SERVICES
ASSISTANT ADMINISTRATOR SATELLITES
UNDER SECRETARY FOR ECONOMIC AFFAIRS
CHIEF ECONOMIST
ASSISTANT SECRETARY FOR PRODUCTIVITY, TECHNOLOGY AND INNOVATION
DIRECTOR - BUREAU OF ENERGY INFORMATION
DIRECTOR - BUREAU OF ECONOMIC ANALYSIS
DIRECTOR - BUREAU OF THE CENSUS
DIRECTOR - BUREAU OF INDUSTRIAL ECONOMICS
UNDER SECRETARY FOR TRAVEL AND TOURISM - UNITED STATES TRAVEL & TOURISM ADMINISTRATION
UNDER SECRETARY FOR INTERNATIONAL TRADE - INTERNATIONAL TRADE ADMINISTRATION
ASSISTANT SECRETARY FOR INTERNATIONAL ECONOMIC POLICY
ASSISTANT SECRETARY FOR TRADE DEVELOPMENT
ASSISTANT SECRETARY FOR TRADE ADMINISTRATION
DEPUTY SECRETARY FOR DEFENSE PROGRAMS - ASSOCIATE DEPUTY SECRETARY FOR DEFENSE PROGRAMS
DIRECTOR - MILITARY APPLICATIONS
ASSISTANT SECRETARY FOR NUCLEAR MATERIALS
ASSISTANT SECRETARY FOR SECRUITY AFFAIRS
DEPUTY SECRETARY FOR ENERGY - ASSOCIATE DEPUTY SECRETARY FOR ENERGY POLICY & RESEARCH
ASSISTANT SECRETARY FOR ENERGY EMERGENCY PLANNING
ASSISTANT SECRETARY FOR ENERGY TECHNOLOGY CONSERVATION AND ALTERNATIVE SOURCES
ASSISTANT SECRETARY FOR ENERGY RESEARCH
ASSISTANT SECRETARY FOR NUCLEAR ENERGY
ASSISTANT SECRETARY FOR STRATEGIC PLANNING
COMMISSIONER - PATENT AND TRADEMARK OFFICE
DIRECTOR - NATIONAL BUREAU OF STANDARDS
ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION - NATIONAL TELECOMMUNICATIONS & INFORMATION ADMINISTRATION
DIRECTOR - MINORITY BUSINESS DEVELOPMENT AGENCY
ASSISTANT SECRETARY FOR ECONOMIC DEVELOPMENT - ECONOMIC DEVELOPMENT ADMINISTRATION

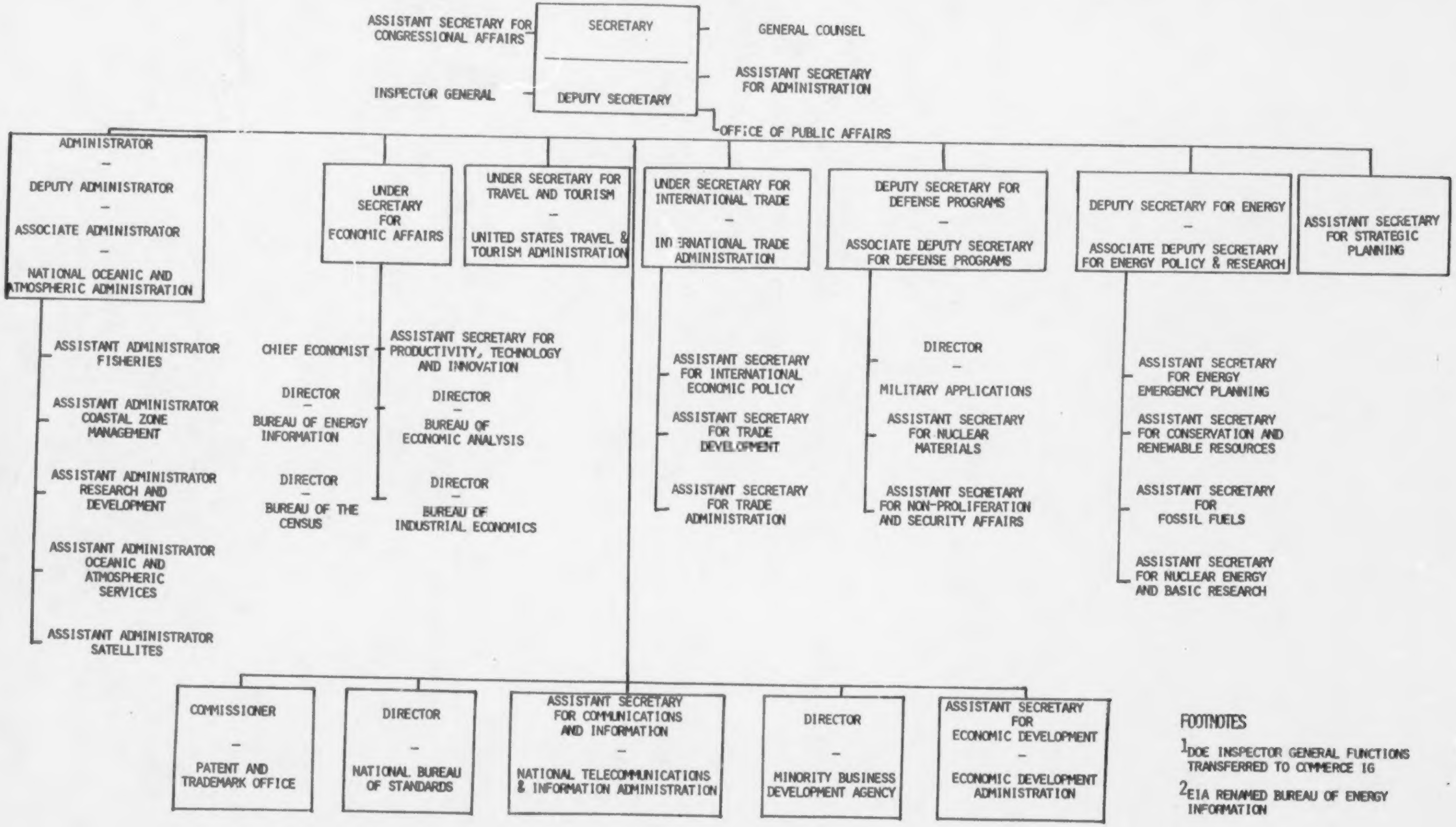
FOOTNOTES

[1] DOE INSPECTOR GENERAL FUNCTIONS TRANSFERRED TO COMMERCE IG

[2] EIA RENAMED BUREAU OF ENERGY INFORMATION

PROPOSED

U.S. DEPARTMENT OF ENERGY AND COMMERCE


SECRETARY
DEPUTY SECRETARY
ASSISTANT SECRETARY FOR CONGRESSIONAL AFFAIRS
INSPECTOR GENERAL
GENERAL COUNSEL
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ASSISTANT SECRETARY FOR TRADE ADMINISTRATION
DEPUTY SECRETARY FOR DEFENSE PROGRAMS – ASSOCIATE DEPUTY SECRETARY FOR DEFENSE PROGRAMS
DIRECTOR – MILITARY APPLICATIONS
ASSISTANT SECRETARY FOR NUCLEAR MATERIALS
ASSISTANT SECRETARY FOR NON-PROLIFERATION AND SECURITY AFFAIRS
DEPUTY SECRETARY FOR ENERGY – ASSOCIATE DEPUTY SECRETARY FOR ENERGY POLICY & RESEARCH
ASSISTANT SECRETARY FOR ENERGY EMERGENCY PLANNING
ASSISTANT SECRETARY FOR CONSERVATION AND RENEWABLE RESOURCES
ASSISTANT SECRETARY FOR FOSSIL FUELS
ASSISTANT SECRETARY FOR NUCLEAR ENERGY AND BASIC RESEARCH
ASSISTANT SECRETARY FOR STRATEGIC PLANNING
COMMISSIONER – PATENT AND TRADEMARK OFFICE
DIRECTOR – NATIONAL BUREAU OF STANDARDS
ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION – NATIONAL TELECOMMUNICATIONS & INFORMATION ADMINISTRATION
DIRECTOR – MINORITY BUSINESS DEVELOPMENT AGENCY
ASSISTANT SECRETARY FOR ECONOMIC DEVELOPMENT – ECONOMIC DEVELOPMENT ADMINISTRATION

FOOTNOTES

[1] DOE INSPECTOR GENERAL FUNCTIONS TRANSFERRED TO COMMERCE IG

[2] EIA RENAMED BUREAU OF ENERGY INFORMATION

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Summary of the Proposed Amendment to the Federal Energy Reorganization Act of 1982 (S. 2562) [1]

PURPOSE

To provide greater balance in the proposed organization between nuclear and all other resources, including conservation, and to underline the continued importance of energy in national affairs.

PROVISIONS

Establish a separate Assistant Secretary for Conservation and Renewable Resources.

Establish a separate Assistant Secretary for Fossil Fuels.

Merge the Assistant Secretary for Energy Research and the Assistant Secretary for Nuclear Energy into one Assistant Secretary for Nuclear Energy and Basic Research.

The current structure is heavily biased in favor of nuclear, while conservation, renewable resources and fossil fuels have been downgraded. These provisions will provide a greater balance in the organizational structure, while keeping the same number of Assistant Secretaries.

Change the Assistant Secretary for Security Affiars to an Assistant Secretary for Non-Proliferation and Security Affairs.

Given the transfer of energy to a Department which has as key responsibilities the promotion of nuclear technology and exports, it is essential to have one individual in the organization confirmed by the Senate who has as a primary responsibility advising the Secretary on non-proliferation matters and who is not at the same time responsible for promoting the development of nuclear technology or exports.

Change the title of the new organization to "Department of Energy and Commerce".

This change in name will underline that the transfer of energy functions is a merger, not a dismantlement--stressing the continued importance of energy to our national economy. Furthermore, the new title more accurately reflects funding levels for energy functions, which remain significantly higher than for commerce-related functions.

Specify requirements for the transition of DOE's conservation and renewable resources function to the new Department.

The current bill leaves the transition totally to the discretion of the Secretary and OMB. Specific language is needed for an orderly transition of these functions.

Senator PERCY. Chairman Roth and Senator Pryor have opening statements which will be inserted into the record at this point.

[The statements referred to follow:]

Opening Statement of Senator William V. Roth, Jr.

Today the Senate Committee on Governmental Affairs convenes the third in its series of hearings on S. 2562, the Federal Energy Reorganization Act of 1982. This proposal would merge the civilian energy and energy defense weapons programs now administered by the Energy Department with the Department of Commerce. The hearing today will deal specifically with the conservation and renewable energy aspects of the DOE civilian energy programs.

The wide range of activities encompassed by the Energy Department, including the important renewable energy programs, are a top priority for the future of our country. Energy preparedness and the independence from uncertain foreign energy sources are essential for our public welfare and a strong national defense. The American people recognize this, particularly in the aftermath of the oil supply disruptions of the last decade. Public awareness of the importance of energy self-sufficiency was reflected in congressional attention to the problem through the creation of energy programs and the establishment of the Department of Energy.

Despite the importance of these programs, a review of the performance of the Federal energy establishment over the last 6 years is a frustrating experience. It is a story of program goals that are rarely achieved, but at great expense to the American people. The proposal before the committee today represents an opportunity to correct these problems in the DOE while maintaining the strong emphasis on our Federal energy programs.

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[1] See the Congressional Record, Sept. 9, 1982, S 11231, for the text of the amendment and the introduction by Senator Percy and Senator Cohen.

When the Congress created the Department of Energy in 1977, it placed a high priority on conservation and renewable energy programs. Specifically, the Congress called for the new department to be responsible for: "Energy conservation functions, including the development of comprehensive energy conservation strategies for the Nation, the planning and implementation of major research and demonstration programs for the development of technologies and processes to reduce total energy consumption, the administration of voluntary and mandatory energy conservation programs, and the dissemination to the public of all available information on energy conservation programs and measures."

With regard to renewable energy, the Congress specified that an Assistant Secretary in the new department should have responsibility for all aspects of solar energy resources.

I applauded this emphasis on conservation and renewable energy sources in 1977 and I support it today. The key to national energy preparedness is the development of a broad array of energy resources. This diversified national energy program should include alternative sources such as solar, wood, and wind power, in addition to nuclear power and the traditional fossil fuel sources.

Regarding conservation efforts, I have long felt that the most efficient energy source is one that does not cost anything. A strong and widely accepted public conservation effort represents this "least-cost" fuel source.

It is not Government's place to dictate public actions in order to bring about these conservation savings. But neither should we rely solely on the free market. Government does have an appropriate role to play in identifying the most desirable conservation techniques and presenting them to our citizens. The market test may then be applied to determine the true worth of the technology under question. This pattern, representing a truly cooperative effort between the Government and the private sector, is the best means of rekindling our Nation's traditional conservation ethic, while reducing our dependence on those unreliable and expensive overseas sources of energy.

This is the level of achievement sought by the creators of the DOE in 1977.

Unfortunately, program performance all too frequently has fallen short of program goals. Report after report from the General Accounting Office has detailed problems in the solar energy and energy conservation programs concerning program shortcomings which, again, occur at great cost to the public purse. The litany of GAO criticism is impressive and disheartening. A sample of these reports complete with recommendations for improvement include the following: "Management Problems Impede Success of DOE's Solar Energy Projects" (EMD-81-10), "Energy Conservation: An Expanding Program Needing More Direction" (EMD-80-82, July 24, 1980), "Residential Energy Conservation Outreach Activities—A New Federal Approach Needed" (EMD-81-8, February 11, 1981), and "State Energy Conservation Program Needs Reassessing" (EMD-82-39, April 21, 1982).

Additionally, a Governmental Affairs Committee staff report on the Department of Energy produced in 1980 was highly critical of the operation of the conservation and renewable energy programs in the DOE. The report, "Oversight of the Structure and Management of the Department of Energy," presents an impressive critique of these programs including failures in the management planning process, delays in the awarding of grants and contracts affecting program performance, other procedural delays in the procurement process which impeded implementation and the lack of program accountability and control. I raise these points not as criticisms of the programs themselves, but to underscore the problems with the management approach taken by DOE since its inception.

This record must be improved if conservation, solar energy, and other renewable energy programs are to contribute fully to our energy self-sufficiency. I continue to support these programs and will carefully examine any reorganization proposal to determine its effect on conservation and solar energy programs. I look forward to the results of the hearing today and to the creation of a full committee record on S. 2562.

OPENING STATEMENT OF SENATOR DAVID PRYOR

Mr. Chairman, I am pleased that the Governmental Affairs Committee is continuing consideration of the proposal to reorganize the Department of Energy. As we know, the Department of Energy was established in the fall of 1977 after 5 reorganizations of energy functions during the preceding 4 years. Both Congress and President Carter expressed confidence at that time that the new Energy Department would be an important step forward in shaping more effective national energy policies which impact on both the country as a whole and individual American consumers.

A major reorganization of this type raises hundreds of questions which range from the impact on individual employees of the agency, the costs associated with major transfers of functions, and the implications it suggests of a shift in national energy policy. Reorganization for the sake of name changing is no longer acceptable.

S. 2562, the Federal Energy Reorganization Act of 1982, will have a much stronger impact than merely changing the organizational charts of the Departments of Energy and Commerce. It means the transfer of a highly sensitive and important function, which is essential to our national security, to a Department which has no expertise in this area. It is my understanding that the amendment proposed by my colleagues, Senators Percy and Cohen, is intended to make the current bill a better balanced proposal. I welcome their efforts and others to make this a more acceptable proposal, but many questions still remain.

Throughout this further reorganization exercise I have wondered—Exactly how important is energy policy to us today less than 5 years after the passage of the Act creating DOE? In answering this question we must consider whether the responsibility for establishing a national energy policy should continue to be vested in a single department or, diffused into a department whose primary responsibility has previsouly been to foster and promote business. In such an arrangement the new agency's secondary responsibility appears to be the production of nuclear warheads and lastly it is responsible for energy issues.

The General Accounting Office, in their report of August 2, 1982, as reported to us in a previous hearing, found that the majority of management changes and budgetary savings attributed to the reorganization could be achieved without dismantling the Department of Energy. The GAO went on to state that inadequate attention has been given to the costs and transitional problems likely to result from the reorganization. If such conclusions are accurate it appears that the reorganization would not achieve cost savings, nor has it been designed to improve efficiency, but rather it is being used as a complex means to radically transform energy policy priorities.

Mr. Chairman, I look forward to hearing the testimony of these distinguished witnesses that you have called here today, and I hope that some of our questions about this plan to reorganize the Department of Energy can be resolved.

Senator **PERCY**. Would any other Senators like to make an opening statement? Senator Eagleton?

Senator **EAGLETON**. I have no opening statement.

Senator **PERCY**. Senator Cohen?

OPENING STATEMENT OF SENATOR COHEN

Senator **COHEN**. Mr. Chairman, just a brief comment. I want to associate myself with your remarks and point out that the administration's position that we abandon many of the federally supported technologies which are unable to compete in today's market but which could prove valuable in contributing to our Nation's energy mix in the future is somewhat inconsistent in terms of the policy drawn from the nuclear industry, because the administration has drawn an exception.

It says the marketplace will encourage people to use solar energy on their own, but the nuclear energy is weak and requires Government presence to put it on stronger footing. It seems to be rather inconsistent on one hand to ask us to fall down and pay tribute to the free market system when it comes to every other form of energy resource and yet carve out an exception to the nuclear industry itself.

Second, there is a potential conflict, in my judgment, in terms of the reorganization proposal by the administration placing all Federal nuclear programs—both civilian and military research and development, as well as the promotion of nuclear exports, under the Department of Commerce. It seems to me there is an inherent conflict of interest between this Department's responsibility for promoting nuclear sales abroad and its responsibility for control~~ling the spread of nuclear weapons. It seems to me~~ there is a very strong parallel that this committee has investigated in the past, namely, the transfer of technology to the Soviet Union.

Time after time, you, Mr. Chairman, and others on this committee, have held hearings to try to determine ways in which we can resolve this dilemma that we face of transferring technology to the Soviet Union. We find there is a very strong commercial interest on the one hand within the Department of Commerce which frequently overrules the strong objections in the Department of Defense.

It seems to me that we have a parallel situation by combining these Federal nuclear programs under one department, the Commerce Department. It seems to me that we have created an inherent conflict of interest.

Finally, one other point. That is, that I think we should be wary, once again, that we not allow a systematic dismantling of the Department of Energy by allowing the reduction in forces to continue to take place. As a matter of fact, in the recent supplemental that was passed by Congress over the President's veto, there is mandated to the administration a continuation of force levels so that we won't see the dismantling of many important programs.

Senator PERCY. Thank you very much, Senator Cohen.

Senator Mattingly?

Senator MATTINGLY. I have no statement.

Senator PERCY. Our first witness today is the Honorable Governor O'Neill. Governor O'Neill, we are very happy to have you here. Why don't you just take a chair? We are pleased to have you testify today on behalf of the Nation's Governors. Over the past decade, the Governors have often been the front line of our Nation's energy defense. They have had to face long gasoline lines, natural gas curtailments and the hardships of low income people faced with rising fuel costs. As a leader on the National Governors' Association Energy Committee on Conservation and Renewables, your insights on how we could provide greater balance to this reorganization proposal will be particularly important today.

Given the tightness of today's agenda and the number of witnesses that we have, the committee would very much appreciate it if all of our witnesses could summarize their statements. Their full written statement will be inserted in the record and possibly a summary will then give us a better chance to draw up points and questions.

Thank you.

TESTIMONY OF WILLIAM A. O'NEILL, GOVERNOR, STATE OF CONNECTICUT, REPRESENTING THE NATIONAL GOVERNORS' ASSOCIATION, ACCOMPANIED BY NED HELME, NGA; BRAD CHASE, SECRETARY OF ENERGY, STATE OF CONNECTICUT; AND MARY HART, GOVERNOR'S STAFF

Mr. O'NEILL. Senator Percy and distinguished members of the committee, thank you very much for this opportunity to appear today on behalf of and at the request of the National Governors' Association. I am submitting detailed testimony and hope that you will permit me to summarize what you have requested, the views of the National Governors' Association.

The seventies and early eighties have been truly an unstable period in the world energy market. Today, the Nation appears to have swung away from the sense of urgency that has surrounded the energy issues in the past years. Yet it would be a terrible mistake to forget that energy continues to be at the top of every family's budget woes. In New England, for example, about 75 percent of the energy used is oil, most of which is from foreign sources.

Through extensive conservation and alternative fuel efforts, we have managed to cut the dependency somewhat and will continue to work in that direction. But it is unsettling for me and for other Governors to accept a situation in which our States' economic viability can be seriously affected by the events occurring thousands of miles away over which we have little or no control.

Many of our closest allies have even a greater dependency on foreign oil than this country. It is in the context of this, the very real and continuing threat, that the Governors provide you with their views on the administration's energy department dismantlement proposal.

NGA policy specifically recognizes the role that market signals must play in a national energy policy. On this, we are in agreement with the administration. The Governors have long supported decontrol of energy prices with the belief that this would lead to increased domestic energy production and increased incentives for conservation and the development of alternative energy resources.

However, the Governors supported decontrol of oil prices based on a Federal commitment that there would be a continuing Federal effort to assist low income families and to promote increased conservation as a part of any decontrol policy. We believe the Federal Government has a role to play in energy policy. At our summer of 1980 meeting, the Governors articulated a clear policy which was reaffirmed this past February. In short, the energy policy of the NGA, supported by Democratic and Republican Governors alike, called for a balanced energy program which pursues the development of all our Nation's bountiful energy resources.

Coal is our greatest energy resource. However, we must have continued research and development in clean-burning technologies if we are to increase its use and decrease oil consumption. Conservation must be a principal focus of a balanced energy policy, and the Governors believe we need a conservation effort of massive proportions.

We are a country of diverse and sometimes competing interests which need to be brought together at the national level through a single Federal agency. We must have a policy which continues to nurture and support the shared responsibilities of State and Federal Government.

Any evaluation of the administration's reorganization program must consider not only its structural aspects but also the budgetary proposals for the coming fiscal years. A comparison of the goals of the NGA energy policy with the administration's proposal finds significant differences.

The reorganizational proposal is tilted toward nuclear power and the budget proposals for the fiscal year 1982 are not appropriately balanced.

These budget proposals called for a 62-percent reduction in solar, a 45-percent decline in fossil fuels, and the elimination of funding for important State-administered programs.

However, the most damaging of the proposed cuts may well have been the 79-percent reduction in funding for conservation.

Increased energy prices have led to increased energy efficiency. Yet, complete reliance on market forces will not encourage the full range of conservation investments. Some sectors of the economy, such as the housing industry and small businesses, need Government action to stimulate conservation and provide technical assistance.

State-based conservation efforts can and have made the difference between a small business continuing to operate or facing shutdown or relocating in an area with lower energy costs. In Connecticut, individuals, corporations and municipalities participate heavily in conservation programs and activities initiated and sponsored by Federal and State programs.

Examples include our ride sharing and van pool programs where modest expenditures by Government have resulted in an annual savings in the State of over 24 million gallons of gasoline.

Similar examples can be found in the energy management area where residential, commercial, and industrial audits and energy management programs have been initiated by Government-sponsored efforts. A stunning example of the value of energy education and conservation is the so-called Wallingford audit technical team. It is composed of high school students whose recommendations resulted in $500,000 in savings over a 2-year period with only a $12,000 investment.

All of these efforts, while supported in part by Federal funds, were substantially enhanced by non-Federal contributions. A loss of this basic support will serve to deemphasize the need for our citizens to take such worthwhile steps to save energy. The importance of the Governors place on Federal conservation programs is illustrated by their unified stance last year on the need for continued Federal program funding in this area as the highest priority.

In fact, in regard to the organization plan the administration has placed before you, the Nation's Governors adopted a specific policy which states:

> A national commitment to action on * * * (energy) issues requires the continued involvement of a high-level Federal agency. The dismantlement of DOE without its replacement by such an agency would symbolize a diminished commitment by our country to fulfill its responsibilities to both the American people and other nations.

In short, the Nation's Governors are not wed to the continued existence of DOE in its present form.

However, the questions that must be addressed are: Does the administration's proposal represent a real improvement or the best possible approach toward reforming the existing organizational arrangement? Will the proposal save the country's taxpayers money? Will the proposal compliment our compromise needed energy policies? Will the new structure be effective and efficient in carrying forward a balanced energy policy? Will the proposal help to reduce the problems which the present DOE has evidenced? The answers to these questions may, at best, be unclear.

Let me review a few specific concerns to illustrate that point. In the area of costs, I am sympathetic to the need to streamline the size of Government. However, the Governors must also be concerned when the Government Accounting Office analysis concluded that "It is unclear whether the reorganization will cost or save money."

Coordination is essential for any type of effective energy policy. I am troubled that the Congressional Budget Office concluded that the proposed reorganization is unlikely to improve the coordination among energy-related programs.

A balanced energy policy is the desire of all of the National Governors. This is not reflected in the administration's proposal on organization and budget. While we have seen a proposed 79-percent cut in conservation funding, the nuclear fusion program funding was targeted to receive a 45-percent increase.

The NGA recognizes the need to carefully develop nuclear power to achieve our goal of energy independence. However, nuclear development must be a part of an energy budget in better overall balance than what has been proposed. The organizational structure which is proposed also carries a problem of balance. It creates four Assistant Secretaries who have primarily nuclear related functions and only one Assistant Secretary to deal with coal, conservation, solar, oil, gas and related energy forms.

The need for emergency preparedness in the event of a supply interruption is obvious. The Governors should be in support of the President's proposal to assign an Assistant Secretary for emergency preparedness functions.

The Reagan administration has made progress in the overlapping review of program applications, and the Governors appreciate the administrative ease which has resulted from these changes.

In conclusion, can can say that the current energy organizational structure is perfect? Most would agree that it is not.

However, neither is the current proposal for its dismantling. As members of the executive branch of Government, the Governors recognize the administration's desire to reorganize the Federal Government according to its preferences. However, a proposal that may accomplish that reorganization at the expense of the kind of effective and balanced energy program our Nation needs cannot be supported.

Working together, I believe we can move forward toward a plan that will answer many of the concerns which the Governors have articulated. On behalf of the Nation's Governors, my thanks for this opportunity to testify this morning. I will be happy to answer any questions which you have. I have with me staff from the National Governors' Association and my Connecticut office, as well.

Gentlemen of the committee, thank you very much.

Senator PERCY. Governor, I thank you very much. You made it inherently clear that the Governors' Association, on a bipartisan basis, has come down solidly for a balanced national energy program which certainly many members of this committee support.

I would like to suggest to my colleagues that we limit our questions to 5 minutes. I have just two questions because of the number of witnesses we have.

First, I would like to introduce the colleagues you have with you, Ned Helme of the National Governors' Association, Brad Chase, secretary of energy for the State of Connecticut, and Mary Hart from your staff. Is that correct?

Mr. O'NEILL. Right.

Senator PERCY. I welcome you here.

Governor O'Neill, I was very pleased to note also from your testimony that the Governors support the creation of a separate Assistant Secretary for Conservation and Alternative Energy as Senator Cohen and I have been proposing. Are there other changes in the administration's approach which you feel are needed to make this proposal acceptable to the Governors?

Mr. O'NEILL. I think, Senator Percy, that you, Senator Hatfield, and Senator Cohen are moving in the right direction, and I think I can speak for the National Governors' Association in that type of a statement.

The concern we all seem to have is the balance, the balance between conservation and nuclear and other fossil fuels.

Senator PERCY. Do you have any concerns about funding for, say, conservation?

Mr. O'NEILL. I'm not here to request more funding. I think that probably we can get by with funding at levels comparable to those in this fiscal year. The thrust that we as the Nation's Governors feel is that we cannot allow energy to become a second-class problem, because it is a first-class problem in this country. We are at the whim and the fancy of other nations. I think that we have to be sure that we can have an adequate policy in this country for the future. I believe that has got to be addressed, and I don't think it can be diminished. I don't think it is proper that it is given a secondary status at all.

Senator PERCY. Finally, the State of Connecticut is one of the first States to establish an energy extension service to promote conservation to small businesses, municipalities, and churches. Based on your own experience with this program, could you tell the committee why the Government should continue to take a leadership role in the conservation area? Is the Government really needed as a catalyst to stimulate conservation?

Mr. O'NEILL. I think it is. We know that the price also, without doubt, helps with conservation, but in many instances, when we do these energy audits, which have been done in Connecticut, and done very effectively and very well, in the educational process, it is more than just turning down the thermostat to save a gallon of oil. There are other things involved.

There is weatherization. There is education to the homeowner, to the small businessman and even to church groups, to schools, to all kinds of energy users on how to truly conserve. A small dollar investment may save thousands of other dollars and thousands of gallons of oil. I do think it has got to be done in a coordinated effort. It can't be done willy-nilly.

Senator PERCY. Thank you, very much, indeed.

Senator Eagleton?

Senator Eagleton. I will yield my 5 minutes to Senator Glenn. Go ahead.

Senator Glenn. Thank you, Mr. Chairman.

I am probably going to support the Percy amendment, but I think——

Senator Percy. Percy-Cohen amendment.

Senator Cohen. In Maine it is Cohen-Percy.

Senator Percy. Cohen-Percy amendment.

Senator Glenn. Maybe I will ask my name be added on there some place.

Senator Percy. Glenn-Percy-Cohen.

Senator Glenn. Or Glenn-Cohen-Percy, however you want to do it, but I do have reservations in one regard. That is, we are trying to make the best of what is to me an intolerably poor solution on the problem that we are up against.

I don't see that eliminating the DOE is really going to accomplish anything. The original administration estimates of a $1 billion to $3 billion saving have evaporated now in wake of a GAO report that said those were inflated figures, as I understand it, and the figure I received this morning was that the administration estimates now only a savings of $80 million a year over a 3-year period. The estimates of GAO are that those are not new efficiency savings, but they are just plain budget cut savings that we could put in place right now with existing organization if we wanted to.

Your figures of the reductions, I think, vary somewhat from the figures I have from my staff here in that I think you took a different basis of what the cuts were compared to last year's fiscal figure.

If you go back to the original appropriations in place at the close of the Carter administration, the administration wants to reduce conservation, in the 1983 budget by 94 percent; solar and renewables by 90 percent; fossil by 90 percent; energy storage by 100 percent—that's totally zeroed out; electric energy systems zeroed out, a 100-percent reduction; and then, by contrast, there have been increases now with regard to nuclear, at least in 1982.

At present we are faced with something of an energy glut; but we must be concerned as to what will happen in the future, we still are every bit as vulnerable in the future as we have been in the past, it seems to me.

So while I basically agree with the Cohen-Percy/Percy-Cohen proposals here, I just think that the underlying proposal of doing away with DOE and thinking we are making some progress is just foolish.

All these things we worked so hard to get into the budget—solar, energy storage, electric energy systems—all of these things will be initially eliminated and just to say the private industry is going to do all the research that is necessary in these areas is foolish.

I would like to go through your statements here and ask a number of questions that mainly support you here. I thought your statements were excellent on this. They point out the problem specifically.

I am glad to see that the Governors also take this viewpoint on the reorganization.

The last part of your statement you ask the very pertinent question, does the administration's proposal represent a real improvement or the best possible approach toward reforming the existing organizational arrangement?

Will the proposal save the country's taxpayers' money?

Will the proposal complement or compromise the needed energy policies?

Will the structure be effective in carring us toward a balanced energy policy? And you come out with a little less of a definitive statement maybe than I would after all these questions.

You say the answer may be, at best, unclear. I think that is a superb understatement. I think we are heading in the wrong direction with this. I don't see that we are going to gain anything by doing away with DOE.

The Percy-Cohen/Cohen-Percy amendment perhaps makes the best of a bad situation, but I think we ought to do away with the bad situation. DOE has problems. Let's correct those problems and get on with the purpose we had in setting up DOE to begin with. That was to combine all the dispersed energy programs in the Government so we could deal with the energy question effectively.

I have no further questions.

Senator PERCY. Thank you, very much.

Senator Cohen?

Senator COHEN. Just a couple.

Governor O'Neill, what have you done with your weatherization program? How much energy have you, in fact, saved through your weatherization efforts?

Mr. O'NEILL. I cannot give you a specific response to that. I would look to Mr. Chase here, but as far as weatherization programs and so forth, the energy savings and the member of energy audits that have been done by a combination of private and Government sector efforts are impressive.

I don't have that information in front of me as of the moment, but perhaps Mr. Chase can respond to that?

Mr. CHASE. We didn't bring that information with us. We will be glad to make it available to the committee. However, the weatherization program as funded by DOE as well as the other weatherization programs, the auditing programs and all conservation actions, the conservation activities that we have undertaken have been substantial.

Those have been reported and our State conservation program has already been conducted. We will provide that information specifically to the committee.

Senator COHEN. Mr. O'Neill, being from New England, which is a very oil-dependent area, I am sure you share my own belief that if we have a disruption in the supply it is going to mean serious trouble for New England.

What steps have you taken to prepare for the contingency of a cutoff of oil, say, from the Persian Gulf, assuming Iran were to overrun Iraq or that we would have some other sort of an instability in the Persian Gulf such as a physical blockade rather than a reduction as a result of a political statement.

Mr. O'NEILL. As you well know, Senator, there isn't much an individual State can do about the situation like that because we don't control the shipping between the Persian Gulf and, for example, the Port of New Haven, Conn., but we, within the State, have made provisions with our fuel dealers, for example, to be able to redirect fuels from one area in the State to another.

That is why I as a Governor feel very strongly that we have to rely on the Federal Government through an agency such as DOE to help solve these problems. An individual State cannot do it. We can only do so much within the bounds of our State, but if the supply isn't coming in, we cannot manufacture the oil in New England. So the only thing we can do is conserve. This is why I think conservation absolutely has to be part of this national policy.

Senator COHEN. You wouldn't feel too comfortable allowing the doctrine of laissez faire to allocate?

Mr. O'NEILL. No, I don't. You cannot allow our people to be cold in the north because of the prices, and we are having a hard time.

Of course, if the Federal dollars are not forthcoming to help with fuel prices for the poor, that is going to give us an added burden in New England.

We do rely so heavily on foreign fuels. I believe in nuclear power to a degree. We have in Connecticut probably the most reliant State on nuclear, but nuclear doesn't burn in your furnace.

You have got to have oil that burns in your furnace. Nuclear power gives you electrical power to fire the furnace, but you have got to have oil in that furnace.

Senator COHEN. It has been suggested that the Federal Government really has no role in terms of subsidizing weatherization programs and other sorts of conservation measures; that it is in the individual's best interests to weatherize their own homes.

What role does the Government have to play in that?

What is your response?

Mr. O'NEILL. If we are going to decontrol prices, which we have done, and that is a Government decision, then I don't think the Government can allow people not to be able to afford to buy a basic element of life, such as heat.

I think that it is certainly a Government responsibility to help provide weatherization and funding to purchase fuel to keep one warm, particularly in New England.

Senator COHEN. I agree with you. I notice that the statement that was made last year came almost at the time when Congress was being asked to approve the prefunding of construction of a pipeline from Alaska because the individual companies didn't have the resources necessary to accumulate to build that pipeline.

The same measure, the same rationale can be applied to individuals; that it may be in their own self-interest to weatherize their homes. But if they don't have the sufficient capital to do so, that is no answer.

Mr. O'NEILL. That is a good correlation.

Senator PERCY. Thank you, Senator Cohen, indeed.

Senator Eagleton, you ~~have time~~.

Senator EAGLETON. I don't have any questions.

Senator PERCY. Thank you, Governor, very much indeed.

We appreciate it very much.

Mr. O'NEILL. Thank you, very much.

Senator PERCY. I want you to know your constituent, my son and his wife and little child have insulated and completed their condominium in Connecticut and they are saving energy every day.

Mr. O'NEILL. That is a great State in which to live, Senator.

[Goveror O'Neill's prepared statement follows:]

PREPARED STATEMENT OF GOVERNOR WILLIAM A. O'NEILL

Thank you for this opportunity to appear today on behalf of and at the request of the National Governors' Association. As a member of the NGA Energy and Environment Committee, and as Governor from a state where energy supplies and costs are a continuing concern, I am here to discuss with you some of the Governors' views on the Federal Energy Reorganization Act of 1982.

From gas lines to oil gluts the seventies and early eighties have been a truly volatile period in world energy markets. It would be difficult to find situations that have been more prone to swings and changes.

Today, the nation appears to have swung away from the sense of urgency that has surrounded energy issues. Yet it would be a terrible mistake to forget that energy continues to be at the top of every family's budget woes. We may not see it on the cover of news magazines anymore, but it would be foolish to overlook the fact that we are still heavily dependent on foreign oil. In New England for example, about 75% of the energy used is oil, most of which is from foreign sources. Through extensive conservation and fuel alternative efforts, we have managed to cut this dependency somewhat and will continue to work in that direction. But it is unsettling for me and other Governors to accept a situation in which our states' economic viability can be seriously affected by events occurring thousands of miles away over which we have little control. Many of our closest allies have even a greater foreign oil dependence than this country. It is in the context of this very real and continuing threat that the Governors provide you with their views on the Administration's energy dismantlement proposal.

NGA policy specifically recognizes the role market signals must play in a national energy policy. On this we are in agreement with the Administration. The Governors have long supported decontrol of energy prices with the belief this would lead to increased domestic energy production and an increased incentive for conservation and the development of alternative energy resources. However, the Governors supported decontrol of oil prices based on a federal commitment that there would be a continuing federal effort to assist low income families and to promote increased conservation as a part of any decontrol policy.

We believe the federal government has a role to play in energy policy. At our 1980 summer meeting, the Governors articulated a clear policy which was reaffirmed this past February:

> "The 1990 gap between energy demand and the supply of domestic resources must be reduced by a maximum federal-state effort in conservation and increased domestic production...The federal government has a continuing responsibility to provide the impetus and focus for energy policies relating to conservation, renewable resources, fossil and synthetic fuels, research and development, data collection, emergency preparedness, international obligations as well as nuclear power."

In short, the energy policy of the NGA, supported by Democratic and Republican Governors alike, calls for a balanced national energy program which pursues the development of all our nation's bountiful energy resources.

Coal is our greatest energy resource, yet we must have continued research and development in clean-burning technologies if we are to increase its use and decrease oil consumption. Conservation must be a principal focus of a balanced energy policy and the Governors believe we need a conservation effort of "massive proportions".

We are a country of diverse and sometimes competing interests which need to be brought together at the national level through a single federal agency that serves as the focal point for a national energy policy. We must have a policy which continues to nurture and support the shared responsibilities of state and federal governments.

Any evaluation of the Administration's reorganization proposal must consider not only its structural aspects but also the budgetary proposals for the coming fiscal year and future years. A comparison of the goals of the NGA energy policy with the Administration's proposal finds significant differences.

The reorganization proposal is tilted towards nuclear power and the budgetary proposals for FY 82 are not appropriately balanced.

These budget proposals called for a 62% reduction in solar, a 45% decline for fossil fuels and the elimination of funding for important state administered programs. However, the most damaging of the proposed cuts may well have been the 79% reduction in conservation.

Increased energy prices have indeed led to increased energy efficiency. Yet complete reliance on market forces will not encourage the full range of conservation investments. Some sectors of the economy such as the housing industry need governmental action to stimulate conservation since the desire to keep construction costs low often means reduced insulation and other conservation investments. Others such as small businesses, lack the expertise to implement conservation improvements.

State-based conservation efforts can and have made the difference between a small business continuing to operate or shutting down or relocating to an area with lower energy costs. Consumers need reliable energy information, which is not provided through market forces.

In Connecticut, individuals, corporations and municipalities participate heavily in conservation programs and activities initiated or sponsored by federal and state programs.

Examples include our ridesharing and vanpool program, in which modest expenditures by government have attracted major employers such as Connecticut General, Southern New England Telephone Company, Pitney Bowes and Perkin Elmer, to take the lead in vanpool programs which have resulted in an annual savings in the state of over 24 million gallons of gasoline.

Similar examples can be found in the energy management area where residential, commercial and industrial audit and energy management programs have been initiated by government-sponsored efforts. United Technologies, the American Petroleum Institute's local subsidiary and many other businesses have participated in conferences to share information and technology under the Connecticut Business Coalition to Save Energy.

A stunning example of the value of energy education and conservation is the Wallingford Auditing Technical Team. It is composed of high school students who have made recommendations within the local school system which have meant more than $500 thousand in savings in two years with only $12,000 investment.

All of these efforts, while supported in part by federal funds, were substantially enhanced by non-federal contributions. A loss of this basic support will serve to de-emphasize the need for our citizens to take such worthwhile steps to save energy. The importance the Governors place on federal conservation programs is illustrated by their unified stance last year on the need for continued federal program funding in this area as the highest priority.

In fact, in regard to the plan the Administration has placed before you, the nation's Governors adopted a specific policy on reorganization in February 1982:

> "A national commitment to action on...(energy) issues requires the continued involvement of a high-level federal agency. The dismantlement of DOE without its replacement by such an agency would symbolize a diminished commitment by our country to fulfill its responsibility to both the American people and other nations."

This is a position an overwhelming majority of the Governors support. It is not limited to Governors of a particular region, philosophy or party. I would note that Governor Clements of Texas, the Vice Chairman of the NGA Energy and Environment Committee, spoke out with considerable vigor before the Governors in August. He stated his belief that a national energy department is needed as a focal point for national energy policy.

In short, the nation's Governors are not wed to the continued existence of DOE in its present form. However, the questions which must be addressed are, "Does the

Administration's proposal represent a real improvement or the best possible approach towards reforming the existing organizational arrangement?"... "Will the proposal save the country's taxpayers money?"... "Will the proposal complement or compromise the needed energy policies?"... "Will the new structure be effective and efficient in carrying forward a balanced energy policy?"... Finally, "Will the proposal help to reduce the problems which the present DOE has evidenced?" The answer to these questions may, at best, be unclear. Let me review a few specific concerns to illiustrate that point:

In the area of costs, I am sympathetic to the need to streamline the size of government. However, we must be concerned that the GAO analysis concluded that "it is unclear whether reorganization will cost or save money."

Coordination is essential for any type of effective energy policy. I am troubled that the Congressional Budget Office concluded that the proposed reorganization is unlikely to improve coordination among energy related programs.

As I previously indicated, a balanced energy policy is the desire of all the nation's Governors. This is not reflected in the Administration's proposal on organization and budget. While we have seen 79% cuts in conservation funding, the nuclear fusion programs have increased by 45%.

The NGA recognizes the need to carefully develop nuclear power to achieve our goal of energy independence. However, nuclear development must be a part of an energy budget in better overall balance than what has been proposed. It creates four assistant secretaries who have nuclear functions and only one assistant secretary to deal with coal, conservation, solar, oil, gas and related energy forms.

In the energy information area, the Energy Information Agency has made considerable progress in consolidating a number of forms and reports. The Governors agree there is a need to streamline reporting requirements. The NGA worked closely with many members of Congress to assure the continued information on a state's energy mix and the amounts and kinds of fuels consumed by end-use sectors is essential to our efforts to devise strategies for dealing with energy shortages. Since EIA would no longer be an independent agency under the reorganization proposal, questions regarding confidentiality, constituency and access need to be addressed before moving forward with the consolidation.

The need for emergency preparedness in the event of a supply interruption is obvious. The Governors would be supportive of the Administration's proposal to assign an assistant secretary to emergency preparedness functions. The expectation that the states by themselves will be able to develop programs and have the necessary resources to handle the disruptions that would be caused by energy shortages is unrealistic.

In the past, the Governors have supported establishment of an independent Assistant Secretary for Intergovernmental Relations. However our experience to date suggests that this has merely increased the bureaucracy and has not increased the effectiveness of DOE in working with states and other groups. This function can best be realized by assigning this as a responsibility of all assistant secretaries.

The Reagan Administration has made progress in reducing the overlapping review of program applications. The Governors appreciate the administrative ease which has resulted from those changes.

In conclusion, can we say that the current energy organizational structure is perfect? Most would agree it is not. However, neither is the current proposal for its dismantling. As members of the executive branch of government, the Governors recognize the Administration's desire to organize the functions of the federal government according to its preferences. However, a proposal that may accomplish that reorganization at the expense of the kind of effective and balanced energy program our nation needs cannot be supported.

In both budget and organization, the Administration should seek a better balance. A commitment to more appropriate funding levels for conservation, solar, fossil and state managed energy programs in the years ahead is a matter of great concern to the nation's Governors. In organizational terms, the importance of fossil fuels and continuing conservation efforts justify the inclusion of separate assistant secretaries in the areas of fossil energy and in conservation and renewables.

Working together I believe we can move forward toward a plan that will address many concerns which the Governors have recognized. On behalf of the nation's Governors, my thanks for this opportunity to testify this morning. I will be happy to answer any questions which you may have. I have with me staff from the National Governors' Association and my office to provide you with any additional information you may need.

Senator **Percy**. I was getting just a little nervous because I hadn't seen Secretary Schlesinger walk in, and here he is. We very warmly welcome you, Dr. Schlesinger. It has been a long time since we have been on opposite sides of the table. You have been in so many different roles before the Senate of the United States, each one distinguished.

Your contribution has been immense to this country, and we are honored to have you with us.

Mr. **Schlesinger**. Thank you.

Senator **Percy**. Dr. Schlesinger has served as Assistant Director for the Bureau of the Budget; as Chairman of the Atomic Energy Commission, as Director of the Central Intelligence Agency, and as Secretary of Defense. Dr. Schlesinger was also a principal energy adviser to President Carter, helping to establish the Department of Energy where he served as Secretary of Energy from its inception until August of 1979. Dr. Schlesinger, your expertise in the energy area is certainly well established.

From your past experience you, perhaps more than any other person, are knowledgeable about the inner workings of the Department of Energy. We look forward to your statement. I would like to recall to your mind the meeting I had with you when you were setting up the Department and I came in to tell you, with the chairman of the Ford and General Motors Corp., that Senator Hubert Humphrey and I and Mr. Hills and a fine corporate board were founding the Alliance to Save Energy. We asked you what relationship we should have with the Department of Energy. You leaned back in your chair and you said, "That is the best news that I have had. This job may be possible, and we may be able to achieve our goals."

Looking back at what has been achieved in the way of conservation, we have dramatically reduced our import levels—and it hasn't been just through preaching. Part of it has resulted from when you first sat with us for hours as we deliberated and debated whether we should decontrol oil, and the Alliance to Save Energy voted 25 to 3, a 28-person board, to support the administration's programs to decontrol oil, feeling that was a giant step toward conservation and the marketplace of oil.

The administration very soon supported that position. I think it has achieved its objective and goal. So you have a track record that is a very distinguished one. We are honored to have you with us.

TESTIMONY OF JAMES R. SCHLESINGER, FORMER SECRETARY, DEPARTMENT OF ENERGY

Mr. **Schlesinger**. Thank you, Mr. Chairman. The Alliance to Save Energy has a distinguished record, and I trust it will have a distinguished future in continung to do service to the country.

Mr. Chairman and members of the committee, I very much appreciate the invitation to testify before the Senate Governmental Affairs Committee on the proposals to dismantle the Department of Energy.

It is just 5 years, Mr. Chairman, since I first appeared before this committee to propose to the Congress the establishment of the Department of Energy. Most of the members of the committee will recall the circumstances and the mood of those times. This committee responded vigorously and within a matter of months unanimously reported out legislation to establish the long-awaited Department of Energy. Several of you, including you, Mr. Chairman, participated enthusiastically in the floor debate and made eloquent speeches regarding the need for an institutional mechanism to deal with the Nation's long term energy problems.

Thus, the proposal to eliminate the DOE and to redistribute its functions raises certain obvious questions. What, if anything, has changed in 5 short years? What would so radical a structural alteration suggest regarding either the consistency of congressional intent or the capacity of this Nation to maintain an institutional structure not subject to the vagaries of fashion? I shall address both questions later.

Mr. Chairman, I will skip the discussion of the background of the Department save to make these observations: That by 1976–77, there was a consensus in the United States, a consensus backed by industry, by the executive branch, by the Congress, of the need for a Department of Energy. The proposals made by President Carter were a variance, an adjustment of the plan for a Department of Energy that had been created by the Ford administration. When these proposals came to the Hill, they were almost unanimously supported by the Members of Congress. There were 10 opposed votes in the Senate on the original bill, 20 opposed votes in the House. By the time of the conference report, there were 14 opposed votes in the Senate and 57 in the House.

But, Mr. Chairman, I wish to spend most of my time, if I may, on substance. So let me go back to the issue of what has changed. With respect to the fundamental problem of energy supply, remarkably little has changed. The estimated capacity worldwide to produce crude oil has diminished significantly. In retrospect, the oft-criticized CIA report of 1977 was, if anything, exuberantly optimistic with regard to prospective crude oil production capacity. Not only has estimated capacity declined significantly, that decline is now universally acknowledged. Domestic crude oil reserves continue to fall, despite a substantial, if now interrupted, surge in drilling activity.

Today the necessity, both for conservation and for fuel switching, is universally accepted. A certain pride is now taken in conservation. This is in sharp contrast to the widespread skepticism that greated Jimmy Carter's statement that conservation was the cornerstone of his energy policy. No longer is it suggested that energy use must move in lockstep with the growth of national product. No longer is it asserted: "Conservation is not the American way; production is the American way." Indeed, conservation may have passed beyond the point of mere acceptance to that of an incantation—hinting that somehow shrinking use can be made painless to the society and that conservation will magically solve our energy problems without sustained effort on our own part.

The development of energy alternatives—that other pillar of policy—has regrettably slowed. Nuclear energy, synfuels, the sharp reductions in R&D activity, all of these are familiar. The absence of these alternatives presages trouble in the future—if we assume, as we must assume, that at some point the international economy recovers from the present deep worldwide recession and begins once again to grow, thus bringing a revival in oil demand.

"What has changed" since 1977 is more a reflection of the severe worldwide economic decline than of any change in the fundamentals of energy supply. The recession, along with associated destocking, has been the principal cause of reduced oil demand, especially, at the margin, for OPEC oil. Yet, the recession is itself in considerable degree, a consequence of prior gyrations in energy markets. It directly reflects the sharp change in relative prices, sudden shifts in international demand, and the altered patterns of trade. It has, in turn, been a principal cause of the obsolescence of capital plant and equipment, of rising unemployment, of declining productivity of both labor and capital.

Mr. Chairman, as the productivity of energy rises, which is the other side of the shield of rising energy efficiency, the productivity of the other factors of production, labor and capital, have both tended to decline. It is this situation which underlies many of our present economic difficulties.

Gyrations in the energy market lie behind the serious balance of payments problems of the lesser developed countries, of the growing risk of default, and of the consequent threat to the international financial machinery. And yet the question still arises whether energy is sufficiently important to deserve special attention.

Moreover, deep recession—reflecting to so large an extent the energy problem—is sometimes treated as if it were its cure. Reduced demand for oil, flowing from recession and destocking, underlies the so-called oil glut, from which some draw so much unwarranted comfort regarding future oil supply. The oil market has become increasingly and dangerously volatile. Recession, to so great a degree a reflection of the energy problem, is most inappropriately viewed as a longrun cure.

All of this is by way of background to the proposals of the administration to eliminate the Energy Department and to distribute its functions elsewhere in the executive branch. Over time, the administration's rational for the elimination of the Department of Energy has changed. With respect to justifications for such an action, we have had an embarrassment of riches. The initial rationale, during the campaign and the administration's first year, was that the Department should be dismantled since it had no serious function other than to intervene in the free market. More recently it is being suggested that the proposed transfer would strengthen the energy functions of the Government as well as the combined departments. This embarrassment of riches is a logical result of an earlier campaign promise now in search of an organizational rationale. Yet, when all is said and done, the underlying motive continues to be a downgrading, indeed, an undermining, of the energy functions of the Federal Government.

Mr. Chairman, this committee has asked me to give my views regarding the proposed reorganization. It would be extremely difficult, in so brief a time, to provide an evaluation of so complex a set of proposals if they possessed substantial intrinsic merit. Happily, in this case, it is possible to deal in brief compass with the proposals before you, for it is always easier to deal summarily with what is, at base, a poor idea.

Let me, therefore, briefly make a series of points regarding the proposed changes.

First, at first blush, the notion of combining energy responsibilities with those of Commerce appears to have some plausibility. Clearly, the present reorganization proposals are a vast improvement over the initial, naive belief that the energy authorities and functions of the Federal Government could simply be dissipated through faith. Yet, on examination, merging the Energy Department into Commerce is distinctly a retrogressive step.

To be sure, in certain other countries energy responsibilities have been lodged in ministries of economics or ministries of commerce. Yet in all such cases—Japan and Germany are perhaps the preeminent ones—these are primarily energy-importing nations. None has the major management responsibilities embodied in a vast industrial domain like the Energy Department's enrichment activities or, even more notably, the weapons production complex. None has a farflung research and development structure like the network of weapons, energy and scientific laboratories taken over by the Department of Energy from the old Atomic Energy Commission. The scientific community gives the proposed reorganization almost zero support.

Nor does any such nation have the oil and gas production activities represented by the former naval petroleum Reserves. In such nations, the energy responsibilities are primarily those of negotiations, energy pricing and industrial storage. By contrast, the United Kingdom and Norway, whose activities in the North Sea have begun to approximate the vast domain of the U.S. Energy Department and its predecessors, have themselves felt obliged to establish energy departments.

Given both the massive size and the long history of inhouse governmental energy activities, the proposed merger with Commerce appears dysfunctional.

Two, if long-term goals of the Federal Government include the fostering of energy conservation and the introduction of alternative energy sources, there would appear to be a tension between these objectives and the historic mission of the Commerce Department. Pressing the goals of the energy conservation and the introduction of alternative energy technologies implies the incurring of short-term business and private sector costs to attain longer-term national benefits. In short, Commerce would be obliged to counter the normal tendency of business to focus on the ever-compelling "bottom line,"—an obligation that in Commerce might scarcely be unambiguous.

Despite the best will in the world, a Secretary of Commerce may be reluctant to diverge too sharply from prevailing business opinion to press such issues—especially during periods of economic weakness or non-existent profit margins.

Third, the Department of Energy, like its predecessors, has major national security responsibilities. In addition to the research and development, design, testing, production and storage and breakup of nuclear weapons with which most observers are familiar, these responsibilities include the monitoring and interpreation of nuclear test by other powers and the gathering and interpretation of intelligence on energy, not confined to nuclear matters. These would be, to say the least, rather novel responsibilities for a Department of Commerce.

When the Atomic Energy Act was passed, the AEC was created, not merely to keep nuclear weapons from the direct control of the uniformed Military Establishment, but also by design, to avoid any taint of Commerce or commercial impulse. I believe these considerations are still valid. It seems to me inappropriate to insert such activities into a government department whose major mission over the years has been to bring improvement in the balance of payments.

Four, along these lines, nonproliferation responsibilities have been a principal duty of the Secretary of Energy. Threading one's way amongst the conflicting pressures—the withholding of sales or the completion of sales, the application of subtle pressures, and so on—is difficult enough in itself, without imposing on the principal officer concerned either the reality or the suspicion of being motivated by commercial goals. In the past, American policymaking in this area has been far freer of such commercial pressures than have the policies of some of our European allies, for example. That freedom from commercial pressure and from suspicion continues in my judgment to be desirable.

Five, finally, one may ask, could a merger of Energy and Commerce achieve significant positive gains? The answer to this question is "no". There will be no significant budget savings—a judgment recently reinforced by the General Accounting Office. Indeed, further expenditure reductions will take place, by and large, only through further program reduction. I earlier mentioned that the real level of expenditures on energy programs is now substantially lower in real terms than that requested by the Ford administration for the DOE's predecessor agencies well before the establishment of the Department of Energy. Moreover, as a consequence of this proposed transfer, unnecessary in my judgment, there will, for a number of years, be a great deal of institutional turbulence—further both adding to the costs and reducing the capacity of either the Department of Commerce or the Department of Energy to perform its appropriate function.

Mr. Chairman, so much for explicit problems. I have two special problems that reflect the neglect of the Energy Department's functions. I will pass rapidly over them in order to save time.

First, I should like to underscore the issue of energy management. In a crisis, we would not be able to depend upon laissez faire. I distinguish sharply between liassez faire and the use of market forces. I believe that the use of market forces would be valid, but probably would not solve all of our problems, including, for example, the allocation of diesel fuels during a period of difficulty, especially in the agricultural sector. But, whatever we do in the United States, Mr. Chairman, even if we rely on market forces exclusively, we cannot avoid the responsibilities for governmental mechanisms and action.

Yet, even assuming that our domestic problems could be fully handled without Government intervention, the administration's preference would still, in my judgment, be unattainable. We must recall that the United States is a member—indeed the leader—of the International Energy Agency. We should recall that in a crisis, by IEA agreement, international allocation would be triggered by a shortfall of some 7 percent in oil supplies. The American Government should then be obligated both by the procedures and by moral responsibility to share the available supply of oil with allies and other member nations. Our partners are watching us, Mr. Chairman, for signs of a serious intent and of a continuing commitment to live up to the obligations that we have freely undertaken. To deny the need for Government involvement in allocation and to rely upon laissez faire, even rhetorically, implies prospective disorder in international markets under such conditions and serious international political problems—even if we strive to avoid Government intervention entirely at home.

I suggest two conclusions: First, laissez faire is not a real world alternative. If we are to remain credible internationally, we must have a serious system for emergency management. Second, a strong voice for energy at the cabinet level is perhaps most dramatically needed to satisfy our international responsibilities.

Mr. Chairman, I want to add another example of the impact of the dogmatic approach which has imposed substantial costs on this Nation's international goals, a case that you are familiar with, Mr. Chairman, from your other responsibilities. I refer to the Soviet natural gas pipeline to Europe—a project that remains alive and well. Let me observe in passing that I think that the initial European decision substantially to increase gas purchases from the Soviet Union was a strategic error, and that the substance of the American position, however badly expressed, was indeed correct.

The heart of the matter, however—clear at the very outset of this administration, was the need for a plausible alternative in Europe to Soviet supply of hydrocarbons. At the time it was my judgment that this project had to be nipped in the bud by the development and exposition to the Europeans of a serious alternative that would satisfy their energy needs. Instead, the United States entirely failed to develop a serious alternative or serious substantive dialog, so that by the time of the Ottawa Summit some 15 months ago, the ultimate outcome was already settled. Now we are thrashing around in the belated attempt to head off the pipeline with little prespect for success. The plain outcome is not to bring pressure on the Soviets or the military regime in Poland, but rather to divide the West. Growing tensions with our West European allies have been all but inevitable over extraterritoriality and the imposition of sanctions. The decision to impose the sanctions has been defended in terms of an ever changing sequence of disparate and conflicting rationales.

The reason that I raise this question is that such setbacks to the national interest can be avoided through foresight, knowledge, and planning. At the outset of the administration, there was no effort to develop a serious alternative to the Soviet pipeline that would be plausible to the Europeans. Indeed, the only group with the knowledge to develop such an alternative was the International Division in the Energy Department. For reasons that, at base reflected the administration's attitude toward the Energy Department, it was decided to keep the International Division out of the problem. Instead, there was a steady, highly successful and regrettable effort to reduce the personnel, the role, and the capability of that division.

The more serious aspects of our current controversies might well have been avoided if proper thought had been taken at the proper time. The United States does not exist alone in the world; nor can it make decisions unilaterally. To effectively interact with other countries on energy problems we shall need to have an appropriate capability in the Federal Government. We cannot rely on bromides regarding the beneficient workings of laissez faire.

Mr. Chairman, it is perhaps wise for us to reflect, amid demise or the postponement of so many major energy projects—Cold Lake, Alsands, Colony Oil Shale, the Alaskan Natural Gas Transportation System, et cetera—that there is but one today that is forging ahead: the Soviet natural gas pipeline. Whether this points to the steadfastness of the Soviet Union or the incapacity of the Western World to sustain longer range plans or efforts, I hesitate to say. It is, indeed, an odd outcome to a decade's alarm in the West over energy.

Mr. Chairman, the proposed reorganization that lies before this committee has remarkably little support—public, technical or political. Even the administration's transition team, with members initially hostile to the Energy Department, concluded after its deliberations that the Energy Department should be continued.

The reorganization proposal that lies before this committee has very little merit. It imposes substantial risks and costs with no discernable benefits. If we examine the issue frankly, we will recognize that the real purpose of this reorganization proposal is to fulfill a campaign promise. Were it not for this political imperative, we would not be devoting any effort either to this examination or to this enterprise. This country and this Congress have enough to do without wasting time and grappling with mock issues.

Mr. Chairman, once again we must rely upon the good sense of the Congress. The suggested reorganization is, at base, a poor idea. I urge this committee to set aside the proposed legislation for dismantling the Energy Department—and to see to it that the Department of Energy is sufficiently strengthened to perform its necessary and legitimate national functions.

Thank you, Mr. Chairman.

Senator Percy. Thank you, very much, indeed, Dr. Schlesinger.

At the time the administration announced its proposal for reorganization of the Department of Energy and the redistribution of some of its functions, I said that I would certainly keep an open mind.

I always favor what efficiency improvements can be made in the way our Government is constituted and throughout these hearings, I have been openminded about it, but we have an obligation to have strong testimony, as we have had on both sides, and you have presented some powerful arguments here.

I would like to focus on the sincere desire that I believe the President has to see the Government better managed and why he felt that the Department of Energy, having gone through some very troubled times in the past, for a variety of reasons, well documented by the General Accounting Office and our own Energy Subcommittee hearings over the past few years, should not be the focus of some attention.

I think a good case can be made for managing our Nation's energy programs somewhat differently. At the same time, I have stated repeatedly that I do see some real problems with the way the reorganization proposal is currently drafted.

I share many of the overriding policy concerns which you have outlined in your statement. I am hopeful that changes can be made in the proposal to respond to these concerns.

Focusing on the basic thrust of the President's proposal, why don't we take a look at tbe power of our cabinet office?

You have pointed out that the Department of Energy just hasn't had the clout, for instances, on the pipeline issue being discussed in Europe. They didn't have an input. Commerce, many times, is also overlooked. It just hasn't been a powerful enough department, and I am wondering from the standpoint of having some real clout whether or not from the standpoint of the President's approach combining energy and commerce in one department wouldn't make a much more powerful department and a more powerful voice and attract high powered people to head that department.

It might turn around the current attitude toward the Department of Commerce. The Department's leadership has many times been turned down by prominent business people by feeling they had much more clout in heading businesses and in heading economics.

Mr. SCHLESINGER. You would certainly strengthen the position of the Secretary of Commerce or the head of whatever that department might be called. You can impose on him disparate responsibilities, but the underlying point, Mr. Chairman, is that before this transition could be carried out, it would be another 1½ years or 2 years down the line in this term, and the reason that the Energy Department has been more or less ostracized reflects the predilections of the President. That is not really a cure; it is a potential cure to a short- term problem, but it does not deal with the longer term issues.

I regretted the exclusion of the International Division of DOE from these deliberations because early on I felt that there was only one solution which was to go to the Norwegians, get a more rapid development of their gas field; go to Chancellor Schmidt and gain his support we should have dealt with both countries in terms of Western security rather than the usual economic considerations.

The Norwegians were asking a higher price for their gas. We could have put together such a proposal before at Ottawa, but when we went to Ottawa, we had essentially nothing to offer to tbe Europeans, and by that time, we had lost the prospects of heading off the pipeline.

Senator PERCY. If I can sum up what you seem to be saying on the reorganization, going through your testimony, it appears as if you were, say, sitting in the same seats we are—casting a vote on this—you probably would vote for the amendment that Senator Cohen and I are sponsoring, but would vote against the bill itself.

Is that a fair summation of the positions that you have taken?

Senator COHEN. I might do that myself, Mr. Chairman. [Laughter.]

Mr. **Schlesinger**. Yes, sir. I think that the Percy-Cohen amendment is a substantial improvement. It imposes responsibilities for energy conservation that would not otherwise be there. But, Mr. Chairman, I must underscore the fact that unless there is a desire, an eagerness in the administration to press forward with conservation, the mere establishment of a post of an assistant secretary is not going to alter the attitudes of that administration. President Reagan, during the campaign, said that "conservation is when we are too warm in summer and too cold in winter." Whether his views have changed much, I do not know, but it does not indicate a wholehearted commitment to conservation, and that will filter down throughout his administration.

As I pointed out, I think the real question is whether or not energy deserves special attention or should it, as some of the testimony before this committee suggests, be treated as just another input like steel or coal—is not the right example—but like steel or aluminum or other inputs. Energy has become a major factor of production like labor and capital, and it deserves, I think, special attention. If it is melded together with other inputs, it will receive very little attention, including all of those concerns that the Alliance to Save Energy has focused on over the years.

Senator **Percy**. Thank you, very much. My time is up.

Senator Eagleton?

Senator **Eagleton**. Thank you, Mr. Chairman.

I want to compliment Dr. Schlesinger on a really excellent presentation. I think his testimony will prove very valuable to this committee. It seems to me that the only rationale—and I will use that word in quotes—for abolishing the Department of Energy is the fact that at the the present transitory moment, we have a glut of oil.

By that same benchmark, we might consider abolishing the Department of Agriculture because we simultaneously have a glut of feed grains, and as the Secretary Schlesinger points out, the time will come—he knows not when, nor do I—but the time will come when we will have a third energy shock. The Middle East, as yesterday's tragedy proves, can be shaken up mightily by an assassin's bullet or an assassin's bomb. Having said that, let me ask a few questions of the Secretary.

Mr. Secretary, you commented in your presentation on the oil production situation and the limits on supply. Some people have pinned their hopes on natural gas as our magical way out of our energy problem, particularly deep gas resulting from the decontrol of prices.

Do you see a miracle, as it were, in the natural gas supply situation in this decade or the next?

Mr. **Schlesinger**. No, sir, and I think that we should not rest our hopes on some prospective bonanza. I think that the American Gas Association is now projecting a drop of production of gas in the lower 48 States from about 19 trillion cubic feet a year to 12 or 14 trillion cubic feet a year by 1990. We will have to work hard to replace that gas. So that one cannot look forward with any confidence to production above that level to replace the dependence on foreign oil. We should push it as far as we can, of course.

Senator **Eagleton**. President Reagan vetoed legislation which would have given the President standby authority to allocate oil in an emergency situation.

Would you comment on the wisdom—or the lack of it—of that veto?

Mr. **Schlesinger**. I think that we need standby authority. The last thing that one wants to do in an emergency is to start creating jerry-built authority, because that is what we wound up with, with the Federal Energy Organization. I was Secretary of Defense at the time, and I had an opportunity to see how the FEO was put together. I do not think we want to replicate that experience. We should have, in place, a mechanism that can be triggered by the appropriate circumstance.

Senator **Eagleton**. As you pointed out in your testimony, the administration has stated its view that alternatives which cannot make it in the marketplace are therefore unworthy of support with the single exception of nuclear energy. Can you comment on what the proper role of the Federal Government should be in encouraging or stimulating new and alternative sources?

Mr. **Schlesinger**. Senator Eagleton, in my judgment, the Federal Government should strenuously work to put into place prototype alternative energy sources so that they can be replicated quickly, in a future which inevitably, in the long run, is going to see less oil and may as a result of crisis suddenly result in less oil availability.

Senator **Eagleton**. You also pointed out in your testimony that the Reagan budget with respect to energy is less than was the Ford budget was for the component entities that ended up being located in the Department of Energy. Insofar as budgetary matters are concerned, in what areas would you like to see a greater emphasis than what President Reagan had submitted?

Mr. **Schlesinger**. I am not familiar with the details, Senator Eagleton, so I must respond in general.

I think that the international responsibilities are very important, and the substantial elimination of the International Division was a serious national mistake, reflected in the pipeline area, but that is very small spending. I think that we have cut back far too much on research and development support.

I took a look at the numbers the other day, and research and development support is well under half in real terms that proposed by the Ford administration. I skip over the Carter years, and the moral equivalent of war; it is less by more than half in real terms than that proposed by the Ford administration. There was a national consensus on that. We have cut back too much. Conservation, solar and renewables, of interest to this committee, I believe, have been cut back over 90 percent in real terms. Surely private enterprise is not going to move out in those areas.

The elimination of support for the oil industry is a point well-taken, but even there, we must be very careful, because we recognize that in the last 6 or 7 months, the number of drill rigs in operation in the continental United States has fallen by 45 percent. I sometimes facetiously suggest that that fall in drill rigs is a consequence of having an unsympathetic administration in Washington that does not understand the need for incentives.

But putting that sort of jest aside, who can argue with the evidence in the marketplace? We have had a 45 percent decline, yet, it is supposed to be additional drilling today that is going to provide our oil in the future.

Senator **Eagleton**. Thank you.

Senator **Cohen**. Mr. Secretary, in following up on your answer to Senator Percy about if the administration doesn't support conservation, there is very little that can be done to promote it. Does the same thing apply if an administration is determined to dismantle a Department of Energy, is there anything Congress can do to save it? In other words, we are seeing, right now the existence of the agency which has to continue, we are seeing RIF's, lower morale, personnel that are leaving because of the attitude of the administration. So assuming we even keep DOE, if the administration is determined to see it go, what can we do?

Mr. **Schlesinger**. I think the answer to that, Senator Cohen, is that the fundamental purpose would be to preserve the carcass of the Department of Energy for a future date. Quite obviously, if the President does not wish to make use of the Department, then, by and large, it is going to be like Karen Quinlan. The life support systems are there, but the brain is dead. That has been the fate, regrettably, of the Department of Energy. But I believe that the carcass should be retained for a future date.

Now, as you know, Senator, there are always small-scale negotiations between the White House and members on the Hill over specific funds and the like, however, little can be done but in the main. If the administration wants to destroy the vitality of the Department of Energy it can be very successful.

Senator **Cohen**. Dr. Schlesinger, I recall reading in the now abolished Washington Star an article you wrote a couple of years ago. I will try to paraphrase what you said. But as I recall what you said, "In the affairs of man, there is one thing that doesn't change, and that is geography."

I think you came to the conclusion that the prosperity of the strength, the economic strength of the West, "was only as deep as the neck of the Persian Gulf was wide."

Based upon your testimony this morning, if, in fact, we have a physical interruption of supplies rather than the political statement that you made by OPEC nations, that that would cause very severe trauma to our economy in the West. We created a—tried to create a Rapid Deployment Force, and one of the things I want to suggest to you is we are spending billions of dollars to create a Rapid Deployment Force with which our western European allies have refused to date, at least, to undertake the responsibilities of the cost, indeed, in defending something that is far more to their interest than ours. I gather from your statement that if, in fact, the cutoff occurred, the RDF doesn't serve as a deterrent to agression in the Middle East, then we would be required to allocate our petroleum supplies with European allies, so you would have an allocation system, in effect, for our European allies but not for our citizens.

Mr. **Schlesinger**. Oh, no. I think that the way you put it is correct, but, of course, our citizens would share equally with the allies in the terms of that cutback.

Senator COHEN. What I am suggesting is that——

Mr. SCHLESINGER. But the allocation system is designed to help the allies and other members of the International Energy Agency who are not directly allies.

Senator COHEN. Right, but we do not have an allocation system for our own citizenry, right?

Mr. SCHLESINGER. We do not, and we have a very flimsy system, internationally.

Senator COHEN. My understanding is that the administration considers that it has the authority under the Defense Production Act to allocate supplies. Do you agree with that?

Mr. SCHLESINGER. It has questionable legal authority, and after two decades of the high water mark of litigation in the United States, any legal authority that is questionable is going to be challenged in the courts under the appropriate circumstances. But it has legal authority that is questionable. It has no mechanism to exercise that authority other than the Department of Energy.

Senator COHEN. Dr. Schlesinger, just a couple of days ago, Senator Percy was chairing hearings dealing with nuclear nonproliferation, as to whether or not there is, in fact, a policy within the administration to deal with that particular problem. I was particularly interested in hearing your statement concerning the inherent incompatibility between merging the functions of defense and commerce. It seems to me, if I can say this, Mr. Chairman, that if it is a conservative mandate to abolish the Department of Energy, it seems somewhat inconsistent to me that we then join forces.

I, for example, am joining with Jake Garn, one of the most prominent conservatives of this Senate, to formulate a new Strategic Office of Trade and Technology. The reason for it is that we found over the years that the commercial instincts and aspects of our Government have overwhelmed more legitimate concerns for national security, that whenever a decision came about selling technology to the Soviet Union, usually the commercial instincts and interests prevailed over serious legitimate national security interests.

One of the reasons we are even proposing this new department is because we have lost control. There is no sense of control over strategic technology that is being transferred. So here we have a conservative proposal of a conservative proposing the creation of a new department to try and get a comprehensive policy in dealing with something that is fundamentally in our interest. I think it is fundamentally wrong for us to abolish departments based on so-called ideological mandates or purities when, in fact, what we are really trying to do is deal with the issue involved. I am glad that you brought that out about the serious defense functions that the DOE does, in fact, serve and that those, indeed, might be compromised by merging with the Department of Commerce.

Senator PERCY. Senator Cohen, I think that there is no better evidence of the truth of what you have just said, the truth of it, than an article that appeared this morning in the Washington Post. I will read the third sentence:

> The Reagan Administration, at the Commerce Department's urging, is reconsidering an earlier decision to prohibit export to South Africa of sophisticated metallurgi-

cal equipment that could be used in making critical components for nuclear weapons, government sources said yesterday.

This shows the danger that we face in that regard, and that is why I am so pleased to see the State Department is putting in a full-time man who is now Under Secretary on the problem of nonproliferation. It is the paramount issue facing the record.

Mr. **Schlesinger**. Can I make a comment with regard to what Senator Cohen has said?

Senator **Percy**. Yes.

Mr. **Schlesinger**. Mr. Chairman and Senator Cohen, I am puzzled by the antagonism of much of conservatism in America to the Department of Energy. The Department of Energy has been, in its present form and in its predecessor, the Atomic Energy Commission, in particular, a major national security institution. Eighty percent of Energy's budget goes to national security purposes. I am not sure about the status of purchases for the strategic petroleum reserve, which I gather are now off budget, but of the real budget, 80 percent goes to national security purposes.

In the years of the Carter administration, the Department of Energy was instrumental in precluding what I regarded as an inappropriately early move into the comprehensive test ban. It was indispensible in keeping up with the production, in creating the capability for the neutron bomb, which was the responsibility of the Department of Energy. It headed off moves to shutdown the fission national material production complex, and I say again, facetiously, that it is actions like these that have lead a large part of conservative America to be determined to eliminate the Department of Energy.

We, I think, should understand that the Department of Energy's role is not related to that 3 or 4 percent of the budget that was spent by congressional requirement on the price control mechanisms and the allocation schemes that grew out of the 1974–75 period. That is the source of conservative America's opposition to the Department of Energy. It deals with the tail of the dog and not the dog itself.

Thank you, Mr. Chairman.

Senator **Percy**. Thank you, very much.

Senator Glenn?

Senator **Glenn**. Thank you, Mr. Chairman.

I wanted to congratulate you, Mr. Chairman, for an excellent statement. I was going to make the point you just made: That the bulk of money in DOE goes to defense purposes. I don't think that is what most people realize, how important a function that is. To put that over under Commerce just, to me, does not make any sense.

Mr. Chairman, I would like to have an opening statement in the record.

Senator **Percy**. It will appear in the record.

Senator **Glenn**. I'd also like to have placed in the record a chart that my staff developed that I think is excellent. It compares what the appropriations actually enacted, under the Carter administration were in these different energy functions.

These weren't just requests but actual appropriations, as of January 6, 1981. Then the chart shows what is being requested by this administration for fiscal year 1983, compares the two figures, as well as showing various other budget figures year by year. But the bottom line is that conservation in the fiscal year 1983 budget is being reduced by 94 percent compared to the Carter period appropriations; solar and renewables would be reduced by 90 percent; fossil, reduced 90 percent; energy storage, totaled out, a 100 percent reduction; electric energy systems totalled out, a 100 percent reduction; magnetic fusion goes up 13 percent; nuclear fusion down only 7 percent. In all, the chart shows that we have just done a complete about face in our support for an area that I think is of vital concern.

I would like to follow up very briefly on the comments the chairman made. I, too, was going to introduce this article. I don't know whether you asked if that be included in the record, but I would ask that the clip out of the Washington Post on nuclear-related export to South Africa be included in the record. The clip shows the antagonism that has already occurred between the Commerce Department and non-proliferation officials at the Energy and State Department's These Departments are very much opposed to the shipment of this specialized equipment to South Africa because of the nuclear proliferation concerns but Commerce is not bringing this export up for a second time, seeking a shift in U.S. policy in the interest of commerce and sales, interests directly opposed to the non-proliferation concerns of this country.

The bottom line, is a comment by an unnamed State Department official who said, "Commerce is going to have to do one hell of a selling job on this one, an official said yesterday."

So here is a clear case of the antagonism between the missions of the Commerce and Energy Departments that show what might happen if, under the reorganization, Commerce became dominant.

Mr. **SCHLESINGER**. Well, the purpose of the Department of Commerce, if I may say so, Senator, is to sell. That is its mission, and the question is whether this is the kind of mission that should lend itself to selling capacity.

Senator **GLENN**. If we want to merge something, it might make for sense to merge Commerce to DOE since its budget is $2 billion and DOE is over $10 billion, and no one is proposing that, certainly, nor would I propose that, but I just think that the direction we are going with this is absolutely wrong and while I basically support the amendment that we are discussing here today, I think it is trying to put a good face on a very bad proposal that I hope we will defeat at this end of the avenue.

I would also point out that as I understand the organization chart for the administration's proposal the "Secretary of Energy" will wind up on about a par with the Under Secretary for Travel and Tourism in the Department of Commerce. I have nothing against travel and tourism. That is fine. It is a major industry in this country, but it does not begin to have the international or economic impact of energy.

On the international impacts of this reorganization proposal let me also ask how we can go before our allies and argue that we are strongly emphasizing energy, and that we will work through the International Energy Agency to cooperate with them on this crucially important question, when we are so visibly downgrading the importance of energy in our governmental structure?

Back to nonproliferation. I forgot to mention one other point in this article. We have a virtual monopoly on this type of equipment. Three companies make it here. One company in Sweden makes it. We have successfully urged the Swedes, according to this article, to not sell this equipment. Now we are about to reverse that position and undercut the Swedes. That gives them the green light to go ahead and sell this equipment anywhere in the world that they can regardless of the nonproliferation objectives that we are trying to foster.

I have not other questions.

[Senator Glenn's opening statement, chart, and Washington Post article follow:]

OPENING STATEMENT OF SENATOR JOHN GLENN

Mr. Chairman, I would like to thank you for holding this hearing on S. 2562, the Federal Energy Reorganization Act of 1982.

I know many of us presently sitting on this Committee, including myself, remember the proceedings which ultimately led to the establishment of the Department of Energy in 1977. A mere five years later we are now being asked to rescind this authority, and to transfer most of DOE's responsibilities into the Department of Commerce. We must Consider the question of what has changed in the past few years to make us contemplate this measure.

It is true that we are presently enjoying the luxury of abundant energy supplies. The Administration attributes this fact to the fruits of its reorientation of energy regulation toward a free market. The decontrol of crude oil plus the gradual decontrol of natural gas are actions most frequently cited. I share in the Administration's objectives of providing adequate supplies of energy to consumers at their least real cost. Moreover, I would concur that unwarranted federal intervention within the marketplace is often counterproductive. However, the Administration's proposal to abolish DOE goes far beyond these issues. Assuredly, total oil imports have fallen dramatically from an average of 8.8 million bbl/d in 1977 to 4.6 million bbl/d in the first quarter of 1982. This overall reduction, in my view, cannot be attributable to the invisible hand or the market mechanism, that is, unless the Administration wants to claim credit for the worsening recession. Rather, it is a combination of factors such as the declining demand for energy stemming from the recession, adoption of energy-efficient conservation techniques, the draw-down of domestic oil inventories, and increased domestic production, principally from the Alaskan North Slope.

It is evident, Mr. Chairman, that we cannot afford to become complacent. There are signals on the horizon that this "glut" could fast come to an end. Domestic production has leveled off while domestic inventories of crude oil are now down to the levels of two years ago. As these stocks are rebuilt, and if this is accompanies by the long-awaited economic recovery, crude oil imports could rise sharply Even more disturbing is the fact that overall domestic reserves are being consumed faster than new reserves are being discovered. For instance, in 1980, we produced 3.1 billion bbl while only 2.4 billion bbl of new reserves were discovered. In all, the ratio of reserves to annual production fell from 9:1 in 1978 to 8:1 in 1980.

Perhaps more ominous is the fact that we are still importing over ⅓ of our total domestic demand for oil, and of this figure, over 40 percent comes from OPEC nations. The world energy supply picture is subject to many countervailing factors. It can change rapidly and without forewarning. The market mechanism cannot account for such swift, uncontrolled changes. That is my primary point. If we were living in a perfect world where energy supply is determined solely by demand, the invisible hand would function marvelously. However, we most certainly reside in an imperfect world where much of the world's trade in this commodity is controlled by the artificial pricing and supply arrangements of the OPEC cartel. That is the essence and purpose for having a Cabinet-level Department of Energy—to provide the foundation for the development of a diversity of energy sources within our society.

We cannot ignore our dependence on energy. Those that offer simplistic solutions to our energy posture must answer how they intend to be prepared for any supply disruptions. Our R&D effort, which includes the improvement of energy efficiency, is ultimately our best means of attaining energy self-sufficiency. Yet, the Administration proposes to slash the federal budgets for those technologies which will enable us to react more quickly to energy supply reductions. For instance, I have had my staff examine President Reagan's budgetary proposals for fiscal year 1983 for energy R&D to compare these requests with these levels in effect when the President took office. At this point, I would like to submit this chart for the record. Conservation R&D has been chopped by some 94 percent, solar and renewables by 90 percent, and fossil fuel R&D by 90 percent. This is not to mention valuable programs such as energy storage, electric energy systems. industrial conservation, and magnetohydrodynamics, which would be zeroed out entirely. This policy, as I've stated before, is "penny wise, but pound foolish", and further ignores the fact that what investments we undertake today will lead to a brighter, more secure future tomorrow.

Mr. Chairman, I would submit that this proposal to dismantle the Department of Energy was illogical and ill-conceived from the start. It is evident that whatever savings to be achieved from this merger, if any, would be paltry. Moreover, while I have the utmost respect for Secretary Baldrige, I cannot begin to comprehend a reorganization that would place a Deputy Secretary for Energy on the same par with an Under Secretary for Travel and Tourism. It is sheer lunacy in my book. If the Administration wants a merger, wouldn't it be more pragmatic to transfer the Department of Commerce and its $2 billion budget over to the Department of Energy, with a budget of over $10 billion? What this effort represents is a downgrading of energy independence as a national priority, and nothing more.

ENERGY RESEARCH AND DEVELOPMENT—FISCAL YEAR BUDGET AUTHORITY IN MILLIONS OF DOLLARS (CURRENT)

	Fiscal year 1981			Fiscal year 1982				Fiscal year 1983	
	Appropriations enacted under Carter (January 1981)	With proposed Reagan rescissions (March 1981)	As appropriated by Congress (June 1981)	As proposed by Carter (January 1981)	Reagan first proposal (March 1981)	Reagan 12 percent rescissions (September 1981)	Actual appropriations (December 1981)	As proposed by Reagan (February 1982)	Comparison with Carter program January 1981 (Change dollars/percent)
Conservation [1]	302	212	297	336	88	76	143	18	$−284/−94
Solar and renewables [2]	797	625	708	684	241	211	326	83	−714/−90
Fossil [3]	1,111	834	997	1,572	441	374	416	107	−1,004/−90
Energy storage	72	52	72	60	39	34	39		−72/−100
Electric energy systems	40	35	40	39	10	9	21		−40/−100
Magnetic fusion	394	383	394	506	460	404	451	444	+50/+13
Nuclear fission [4]	1,094	1,166	1,077	959	1,247	1,109	1,178	1,016	−78/−7
Related programs:									
Energy conservation grants	515	346	412	586	107	94	240	4	−511/−99
Solar and energy conservation bank	121	0	0	50	0	0	[6] 23	0	−121/−100

[1] Conservation includes: Buildings and community systems, Industrual energy conservation, transportaion, residential/commercial retrofit, and multi-sector.

[2] Solar and renewables include: Active and passive heating and cooling, photovoltaic energy systems, solar thermal energy systems, biomass energy systems, wind energy systems, ocean energy systems, solar energy research institute, alcohol fuels, hydropower, and geothermal energy.

[3] Fossil includes: Coal—Mining research and development, coal liquefaction, surface coal gasification, In-situ gasification, advanced research and technology development, advanced environmental control technology, heat engines and heat recovery, combustion systems, fuel cells, and magnetohydrodynamics; petroleum—enhanced oil recovery, oil shale, drilling and offshore technology, advance process technology; gas—enhanced gas recovery; and fossil fuel applications.

[4] Nuclear Fission includes: Commercial nuclear waste, nuclear waste disposal fund, advanced nuclear systems, converter reactor systems, nuclear fuel cycle, breeder reactor systems, advanced isotope separation, uranium resource assessment, and remedial action. Funding for Clinch River Breeder Reactor included in all columns except Carter fiscal year 1982 proposal.

[5] Energy Conservation Grants include: State and local programs (such as energy conservation retrofit for school and hospital buildings and low-income weatherization), and energy impact assistance (designed to assist communities adversely impacted by rapid increases in employment resulting from the development of energy resources).

[6] "Impounded" by Reagan.

Sources: DOE budget requests for fiscal years 1981, 1982, 1983, and actual apropriations for fiscal year 1981 and fiscal year 1982.

[From the Washington Post, September 15, 1982]

Administration Reconsidering South Africa Equipment Ban

(By Milton R. Benjamin)

The Reagan adminstration, at the Commerce Department's urging, is reconsidering an earlier decision to prohibit export to South Africa of sophisticated metallurgical equipment that could be used in making critical components for nuclear weapons, government sources said yesterday.

The equipment is a large hot isostatic press, used to mold powdered metals at high temperatures and under great pressure into special shapes such as solid and hollow spheres.

While information about the exact use of such presses in the U.S. military program is classified, a knowldgeable source said yesterday that they could be very useful to a country seeking to build nuclear weapons.

The United States in recent years has rejected efforts by a half-dozen countries, including Israel, India and Taiwan, to buy these large presses. It also has successfully urged Sweden, the only other nation that manufactures a comparable press, not to export it to countries that might be developing nuclear weapons, sources said.

An attempt by South Africa to purchase one of these presses was rejected by the administration earlier this year. But now the Commerce Department, which would license such a sale, has resubmitted the South African export application for a new interagency review.

"This is a longstanding item over which there has been concern," said Archelaus Turrentine, deputy assistant director of the U.S. Arms Control and Disarmament Agency. "It's obviously something that could be used in a nuclear weapons program, and you don't want to give somebody a key capability that they are missing that might let them move ahead."

The presses, however, are considered "dual use" items because smaller presses are widely used in a variety of commercial applications, and large hot isostatic presses, which are manufactured only by three American companies and the one Swedish firm, also are used in this country in the aerospace industry.

The seller would be Autoclave Engineers Inc. of Erie, Pa.

The South African compoany attempting to purchase the press has said it plans to use the equipment in manufacturing tungsten carbide drill bits for oil rigs, an application that experts say appears legitimate.

"But our policy, dating back to the previous administration, has been that we would not export the large hot isostatic presses to countries of proliferation concern," a State Department official said yesterday. "When this latest application came before the interagency Subgroup on Nuclear Export Coordination (SNEC), that policy was maintained."

But now the Commerce Department, sources said, is pressing for a new meeting of SNEC within the next two weeks to reconsider the rejection, and is arguing that large hot isostatic presses may not be as important to a country seeking to manufacture nuclear weapons as has been believed.

The State Department and the arms control agency, however, which traditionally have played the senior role in approving exports of nuclear-related items, are taking an extremely skeptical view of the Commerce Department's position.

"Our policy has been that we do not approve these kinds of things, and I can only assume the Department of Energy and their technical experts made the right decision when they reviewed this the first time," a State Department official said.

"The people here are pretty firmly opposed to this sale," an arms control agency offical added. "Other countries have agreed that not exporting large hot isostatic presses to countries of proliferation concern sounds like a good policy, and no one has fallen off the boat yet. There is sort of an agreement we will not undercut each other on this."

State Department officals expressed particular concern over the reaction of Sweden if the United States, after repeatedly urging the Swedish government not to permit export of these presses, now permitted an American firm to make such a sale to South Afica.

"If we in fact change our mind on the policy, we are going to have a certain amount of embarrassment in connection with the Swedes," a State Department official said.

But State Department officials noted that, while the Commerce Department has the authority to grant a license for the export of the hot isostatic press to South Africa, this license requires interagency concurrence. Commerce's recent approvals of electric police batons to South Korea and small jets to Iraq did not require such concurrence.

"Commerce is going to have to do one hell of a selling job on this one," an official said yesterday.

Senator PERCY. Thank you, and Dr. Schlesinger, we again appreciate very much indeed your being with us today.

Senator EAGLETON. Can I ask one final question?

Senator PERCY. Of course.

Senator EAGLETON. If this committee rejects the proposal to abolish the Department of Energy, are there any organizational or structural changes which you would support, based on the experience of the Department being in operation 5 years and with the benefit now of hindsight?

Mr. SCHLESINGER. Let me answer that very briefly, Senator.

I think that there is room for greater authority for rulemaking in the area of the FERC in which the Secretary proposes the rules. Such a rule could be rejected by the FERC, but it is a way of shortening what is a very time-consuming process through the adjudicatory proceedings of the FERC.

I reject entirely the notion that it would be an improvement to take the FERC out of the Department and re-establish an independment commission. I think that there is need for strengthening the information functions of the Department. These have been weakened. That has been pointed out by the Joint Economic Committee. They should, again, be strengthened.

It is necessary, if we are to rely on free enterprise, to have information out for the public and for the business community to say that all of this can be done by the private sector. But then to cut back on the necessary information for the private sector, it seems to me, is to be pennywise and poundfoolish.

I would stress the need for energy conservation. Mr. Chairman, I brought this. I was in Toronto some time ago, and I just picked out this full page advertisement by the Government of Canada saying, "We can make it. We can produce somewhat more, and we can use somewhat less," keeping the legitamacy of energy conservation in front of the public. We have cut back sizably, Senator Eagleton, on all of the public information activities of the Department. To be sure, the purpose of these activities is to elicit a public response to a major national problem, but I do not regard that as an appropriate one. The regulatory functions of the Department can and should be substantially cut back. That was part of the original energy plan of 1977. I think all of that is a point well taken.

Senator EAGLETON. Thank you.

Senator PERCY. Thank you, very much, Senator Eagleton.

Senator Glenn?

Senator GLENN. One additional comment.

I think, Mr. Secretary, when you commented on the major cuts in the DOE R&D budget, you were not just defending your own budgets—where you might tend to be a little biased; you were also pointing out that these cuts were over 50 percent of what was proposed in the Ford administration.

We worked closely with your administration on some of these R&D matters. I think the last fiscal year 1982 budget submitted out of the Carter administration was $684 million, covering solar and renewables.

The new administration cut that, by my estimate by $473 million, which is about a 69-percent reduction for fiscal year 1982 since our first proposals for that year, which I think is a tragic cut.

The rationale, supposedly, for combining the DOE with Commerce, was a $1 billion to $3 billion saving but the GAO reports now, that these figures were grossly inflated.

The savings anticipated have now been reduced, and I understand the latest administration estimates are that the reorganization would save $80 million a year for 3 years. GAO said that those figures, too, may well be inflated, and that those are not new efficiencies that the administration is talking about, but actually more budget cuts. So the new efficiencies that they have touted are just not there.

The closing couple of paragraphs of your statement, I thought, were particularly apropos where you referred to the fact that were it not for this political imperative—a campaign promise—we would not be devoting any effort to this enterprise. "The country has enough to do without wasting time and grappling with mock issues."

You went on in your final paragraph to say that the suggested reorganization is a poor idea and urged us to really make the DOE work the way it should, and to perform the functions that it was supposed to perform instead of eliminating it, which I agree with 100 percent.

Senator JACKSON. Mr. Chairman, would you yield for 30 seconds?

Senator PERCY. I would be happy to and we are pleased to welcome you.

Senator JACKSON. Mr. Chairman, I have another meeting going on. I would like permission to submit for the record a statement on this matter.

[The statement referred to follows:]

STATEMENT OF SENATOR HENRY M. JACKSON

Mr. Chairman, once again we convene to hear witnesses discuss the Administration's proposal to hide the Department of Energy in the Department of Commerce. I suppose that this legislation is due serious consideration by the Committee for at least one reason—this is the only significant initiative in energy submitted by this Administration to the Congress since they took office. While there have been other initiatives and indeed important energy legislation has been enacted in the past year and a half, these legislative initiatives were instigated by the Congress, not by the Administration.

The general reaction of the Congress to this bill, which might be described as galloping indifference, is easy to understand. The rationale for this legislation is less easily understood. Those among us who search for some hope of budgetary savings through this initiative have seen the Administration's projected savings spiral downward from an initial estimate of $1.3 billion for FY 1983 alone, to $1 billion over a three-year period, and to the latest "goal" of achieving $80 million per year over 3 years. The General Accounting Office recently said of the latest estimate, "* * * it is not adequately documented and does not reflect a full assessment of the potential reorganization expenses."

On September 9 Senators Percy and Cohen introduced amendments to S. 2562 in a laudable effort to include some recognition of the importance of energy conservation and fossil energy in the proposal. I fear that their amendments only administer mouth-to-mouth resuscitation on a corpse.

On the same day that these Senators attempted to introduce some notion of a balanced energy policy in the proposal, an Assistant Secretary at the Department of

Energy published a letter to the editor in a major newspaper defending the Administration's dismantlement proposal. He reiterated the same squishy soft rhetoric that makes this bill's rationale so difficult to fathom:

"Although there are many arguments favoring reorganization, confidence in the free market is, indeed, among the most persuasive. There is a near-unanimity of opinion that the nation's energy problems are exacerbated, if not created by federal intervention in energy markets."

As I have pointed out before, such rhetoric misses the real issues altogether.

Now that the projected administrative savings from S. 2562 are gradually vanishing with each new estimate, perhaps we can move to other real issues regarding this legislation. In that regard, I am very pleased to see that James Schlesinger has come to testify on this legislative proposal, as surely no other single individual has his breadth of experience in managing the functions which fall under the DOE umbrella, including management of the Department itself. Hopefully, the Committee will get some good hard advice from Dr. Schlesinger.

Senator JACKSON. I would say that we are very fortunate in having Secretary Schlesinger here. I worked very closely with him as did the acting chairman of this committee in setting up the Department of Energy.

I am informed that his statement, which I have not had a chance to read, has an excellent analysis of this whole matter, and I want to express my appreciation to Secretary Schlesinger, because he does bring to this committee a unique background and knowledge of the substantive matters and the history of the legislation which this committee plays a critical role in creating the Department.

Senator PERCY. Thank you, very much, indeed, Senator Jackson.

Mr. SCHLESINGER. Mr. Chairman, I would like to recount one last element.

Some months ago, I asked one of the senior officials at the Executive Office whether or not he expected the Department of Energy dismantling to go through, and if not, why the administration was pressing it. He responded that he did not expect it to go through at all; that there was no chance; there was no support in the House and little enough support in the Senate.

Then said I, "Why are you pressing this?" He said, "It makes splendid headlines in Human Events and the National Review." Now, Mr. Chairman, I submit that that is not the appropriate stewardship of the executive branch. We have, and you have, above all, more important things to do with your time.

Thank you, Mr. Chairman.

Senator PERCY. Thank you, Dr. Schlesinger, very much.

[Mr. Schlesinger's prepared statement follows:]

STATEMENT OF
JAMES R. SCHLESINGER
BEFORE THE
UNITED STATES SENATE
COMMITTEE ON GOVERNMENTAL AFFAIRS

September 15, 1982

Mr. Chairman and Members of the Committee:

I very much appreciate the invitation to testify before the Senate Government Affairs Committee on the proposals to dismantle the Department of Energy and to assign its functions to other departments and agencies, primarily the Department of Commerce.

It is just five years, Mr. Chairman, since I first appeared before this Committee to propose to the Congress the establishment of the Department of Energy. Most of the members of the Committee will recall the circumstances and the mood of those times. This Committee responded vigorously and within a matter of months unanimously reported out legislation to establish the long-awaited Department of Energy. Several of you participated enthusiastically in the floor debate and made eloquent speeches regarding the need for an institutional mechanism to deal with the nation's long-term energy problems.

Thus, the proposal to eliminate the DOE and to re-distribute its functions raises certain obvious questions. What, if anything, has changed in five short years? What would so radical a structural alteration suggest regarding either the consistency of Congressional intent or the capacity of this nation to maintain an institutional structure not subject to the vagaries of fashion? I shall address both questions later.

But first a few words of background. In 1971-72, as Chairman of the Atomic Energy Commission, I worked diligently to persuade President Nixon that the energy mission of the Atomic Energy Commission should be broadened to include the full range of energy technologies rather than to be limited to the post-World War II emphasis upon nuclear energy alone -- an historical legacy already outmoded by the altering energy conditions facing this country. By 1971-72 the serious foreign policy, national security, and balance of payments problems posed by the already evident inability of this nation to produce crude oil sufficient to match its steadily burgeoning domestic demand had already become apparent. The ultimate result was a change in the government's concept of its energy mission and a concomitant change in structure embodied in the Energy Research and Development Agency (ERDA). The first of the nation's energy shocks, the 1973-74 Arab oil embargo occurring at a time when I was Secretary of Defense, further prepared the way for a more comprehensive institutional change.

Thus, by 1976 when President-elect Carter asked me to prepare and present to the Congress legislation to create the Energy Department, the need was acknowledged and the necessary groundwork had already been carefully done. President Carter had already indicated that the nation's energy problem would be his highest domestic priority. Moreover, there already existed a Ford Administration plan to create a Department of Energy. The most significant modification made in the Ford plan before President Carter sent his own recommendation to the Congress was the inclusion of the Federal Power Commission within the new Department.

With bipartisan support, the proposed legislation was overwhelmingly passed by the Congress. In the Senate there were only 14 votes against the establishment of the new department; in the House, only 57.

What, therefore, has changed? With respect to the fundamental problem of energy supply, remarkably little. The estimated capacity worldwide to produce crude oil has diminished significantly. In retrospect, the oft-criticized CIA report of 1977 was, if anything, exuberantly optimistic with regard to prospective crude oil production capacity. Not only has estimated capacity declined significantly, that decline is universally acknowledged. Domestic crude oil reserves continue to fall, despite a substantial, if now interrupted, surge in drilling activity.

Today the necessity, both for conservation and for fuel switching, is universally accepted. A certain pride is now taken in conservation. This is in sharp contrast to the widespread skepticism that greeted Jimmy Carter's statement that conservation was the cornerstone of his energy policy. No longer is it suggested that energy use must move in lockstep with the growth of national product. No longer is it asserted: "conservation is not the American way; production is the American way." Indeed, conservation may have passed beyond the point of mere acceptance to that of an incantation -- hinting that somehow shrinking use can be made painless to the society, and that conservation will magically solve our energy problems without sustained effort on our own part.

The development of energy alternatives -- that other pillar of policy -- has regrettably slowed. Nuclear energy, one of the significant alternatives, quite clearly labors under far more severe handicaps than five years ago. Synfuel projects, including many underway, have been deferred and activity has slowed down. Government research and development efforts over a range of technologies have been significantly reduced -- to a level in real terms less than half that projected by the Ford Administration for the predecessor agencies of the Department of Energy. All this presages trouble in the future -- if we assume (as we must assume) that at some point the international economy recovers from the present, deep worldwide recession and begins once again to grow, thus bringing a revival in oil demand.

"What has changed" since 1977 is more a reflection of the severe worldwide economic decline than of any change in the fundamentals of energy supply. The recession, along with associated destocking, has been the principal cause of reduced oil demand -- especially, at the margin, for OPEC oil. Yet, the recession is itself in considerable degree a consequence of prior gyrations in energy markets. It directly reflects the sharp change in relative prices, sudden shifts in international demand, and the altered patterns of trade. It has, in turn, been a principal cause of the obsolescence of capital plant and equipment, of rising unemployment, of declining productivity of both labor and capital. Gyrations in the energy market lie behind the serious balance of payments problems of LDCs, of the growing risk of default, and of the consequent threat to the international financial machinery. And yet, the question still arises whether energy is sufficiently important to deserve special attention.

Moreover, deep recession -- reflecting to so large an extent the energy problem -- is sometimes treated as if it were its cure. Reduced demand for oil, flowing from recession and destocking, underlies the so-called oil-glut, from which some draw so much unwarranted comfort regarding future oil supply. The oil market has become increasingly and dangerously volatile. Recession, to so great a degree a reflection of the energy problem, is most inappropriately viewed as a long-run cure.

All of this is by way of background to the proposals of the Administration to eliminate the Energy Department and to distribute its functions elsewhere in the Executive Branch. Over time, the rationale for the elimination of the Department of Energy has changed. With respect to justifications for such an action, we have had an embarrassment of riches. The initial rationale, during the campaign and the Administration's first year, was that the Department should be dismantled since it had no serious function other than to intervene in the free market. More recently it is being suggested that the proposed transfer would strengthen the energy functions of the government, as well as the combined departments. This embarrassment of riches is a logical result of an earlier campaign promise now in search of an organizational rationale. Yet, when all is said and done, the underlying motive continues to be a downgrading, indeed, an undermining, of the energy functions of the federal government.

Mr. Chairman, the Committee has asked me to give my views regarding the proposed reorganization. It would be extremely difficult, in so brief a time, to provide an evaluation of so complex a set of proposals, if they possessed substantial intrinsic merit. In this case, it is possible to deal in brief compass with the proposals before you, for it is always easier to deal summarily with what is, at base, a poor idea.

Let me, therefore, briefly make a series of points regarding the proposed changes.

1. At first blush the notion of combining energy responsibilities with those of Commerce appears to have some plausibility. Clearly the present reorganization proposals are a vast improvement over the initial, naive belief that the energy authorities and functions of the federal governments could simply be dissipated through faith. Yet, on examination, merging the Energy Department into Commerce is distinctly a retrogressive step.

To be sure, in certain other countries energy responsibilities have been lodged in ministries of commerce or of economics. Yet, in all such cases -- Japan and Germany are perhaps the preeminent ones -- these are primarily energy-importing nations. None has the major management responsibilities embodied in a vast industrial domain like the department's enrichment activities or, more notably, the weapons production complex. None has a far-flung research and development structure like the network of weapons, energy, and scientific laboratories taken over by the Department of Energy from the old Atomic Energy Commission. (The scientific community gives the proposed reorganization almost zero support.)

Nor does any such nation have the oil and gas production activities represented by the former naval petroleum reserves. In such nations, the energy responsibilities are primarily those of negotiations, energy pricing, and industrial storage. By contrast, the United Kingdom and Norway, whose activities in the North Sea have begun to approximate the vast domain of the U.S. Energy Department and its predecessors, have themselves felt obliged to establish energy departments.

Given both the massive size and long history of in-house government energy activities, the proposed merger with Commerce appears dysfunctional.

2. If long-term goals of the federal government include the fostering of energy conservation and the introduction of alternative energy sources, there would be a tension between these objectives and the historic mission of the Commerce Department. Pressing the goals of energy conservation and the introduction of alternative energy technologies implies the incurring of short-term business and private sector costs to attain longer-term national benefits. In short, Commerce would be obliged to counter the normal tendency of business to focus on the ever-compelling "bottom line" -- an obligation that in Commerce would scarcely be unambiguous.

Despite the best will in the world, a Secretary of Commerce may be reluctant to diverge too sharply from prevailing business opinion to press such issues -- especially during periods of economic weakness and thin or non-existent profit margins.

3. The Department of Energy, like its predecessors, has major national security responsibilities. In addition to the research and development, design, testing, production, and storage and break-up of nuclear weapons, with which most observers are familiar, these responsibilities include the monitoring and interpretation of nuclear tests by other powers and the gathering and interpretation

of intelligence on energy, not confined to nuclear matters. These would be, to say the least, rather novel responsibilities for a Department of Commerce.

When the Atomic Energy Act was passed, the AEC was created, not merely to keep nuclear weapons from the direct control of the uniformed military establishment, but also by design, to avoid any taint of commerce or commercial impulse. I believe these considerations still are valid. It seems to me inappropriate to insert such activities into a government department whose major mission over the years has been to bring improvement in the balance of payments.

4. Along these lines, non-proliferation responsibilities have been a principal duty of the Secretary of Energy. Threading one's way amongst the conflicting pressures -- the withholding of sales or the completion of sales, the application of subtle pressures, etc. -- is difficult enough in itself, without imposing on the principal officer concerned either the reality or the suspicion of being motivated by commercial goals. In the past, American policymaking in this area has been far freer of such commercial pressures than have the policies of some of our European allies, for example. That freedom from commercial pressure -- and from suspicion -- continues in my judgment to be desirable.

5. Finally, one may ask, could a merger of Energy and Commerce achieve significant positive gains? The answer to this question is "no." There will be no significant budgetary savings -- a judgment recently reinforced by the GAO. Indeed, further expenditure reduction will take place, by and large, only through further program reduction. I earlier mentioned that the real level of expenditures

for energy programs is now substantially lower than that requested by the Ford Administration for the DOE's predecessor agencies. Moreover, as a consequence of this transfer, unnecessary in my judgment, there will, for a number of years, be a great deal of institutional turbulence -- further both adding to costs and reducing the capacity of either the Department of Commerce or the Department of Energy to perform its appropriate function.

So much for some of the explicit problems raised by the proposed shift of a substantial portion of the Energy Department's responsibilities to Commerce. Earlier I indicated, Mr. Chairman, that the rationale for what was originally advertised as the dismantling of the Energy Department has undergone some alteration and some enhancement in ambiguity during the past year. Nonetheless, I believe that the underlying thrust of the Administration's intentions continues to be to downgrade the energy functions and authority of the federal government.

I should like now to analyze two special problems implicit in the Administration's overall approach, which should be considered separately from the specific proposals for reorganization.

First let me deal with the issue of emergency management. In the past decade we have come to recognize that even a small change in oil availability may bring substantial gyrations in the international oil market with serious economic repurcussions for all importing nations. This volatility is strongly augmented by an inopportune tendency to hoard at the first sign of difficulty. In the Middle East -- on which the Free World will, for the foreseeable future, in large degree depend for its oil supplies -- one war is ongoing, one war has just been concluded, and the region remains characterized by what may most charitably be described as instability. It requires a bold man, and an optimist at that, to deny that in, say, the next decade, we shall not have further supply interruptions and further energy shocks.

The Administration's clear and stated preference is to rely in such matters on laissez faire. Note that I have used the phrase laissez faire rather than "market forces." To a large extent I am sympathetic with the latter notion and would provide ample latitude to market forces in a crisis. For example, I do not believe that gasoline rationing would work in a timely, efficient, fair, or credible manner. I would also be reluctant to reimpose price controls. Rather, I would prefer to impose significant federal taxes on the use of gasoline, with appropriate rebates for those who cannot easily afford to absorb the sudden added costs. Nonetheless, I doubt that this would eliminate entirely the need for some government allocation -- of, for example, diesel fuels for agriculture during the planting or harvesting seasons.

Yet, even assuming that our domestic problems could be fully handled without government intervention, the Administration's preference would still, in my judgment, be unattainable. We must recall that the United States is a member -- indeed the leader -- of the International Energy Agency. We should recall that in a crisis, by IEA agreement, international allocation would be triggered by a short-fall of some seven percent in oil supplies. The American government would then be obligated both by the procedures and by moral responsibility to share the available supply of oil with allies and other member nations. Our partners are watching us -- for signs of serious intent and of a continuing commitment to live up to the obligations that we have undertaken. To deny the need for government involvement in allocation and to rely upon *laissez faire*, even rhetorically, implies disorder in international markets and serious international problems -- even if we strive to avoid government intervention entirely at home.

I suggest two conclusions. First, *laissez faire* is *not* a real-world alternative. If we are to remain credible internationally, we must have a serious system of emergency management. Second, a strong voice for energy at the Cabinet level is perhaps most dramatically needed to satisfy our international responsibilities.

Let me add a second illustration in which the dogmatic approach on energy issues has imposed substantial costs on this nation's international goals. I refer to the Soviet natural gas pipeline to Europe -- a project that remains alive and well. Let me observe in passing that I think that the initial European decision substantially to increase gas purchases from the USSR was a strategic error, and that the substance of the American position, however badly expressed, was indeed correct.

The heart of this problem, however -- clear at the very outset of the Administration -- was the need for a plausible alternative to Soviet supply of hydro-carbons. At the time it was my judgment that this project had to be nipped in the bud by the development and exposition to the Europeans of a serious alternative that would satisfy their energy needs. Instead, the United States entirely failed to develop a serious alternative or serious substantive dialogue, so that by the time of the Ottawa Summit fifteen months ago, the ultimate outcome was already settled. Now we are thrashing around in the belated attempt to head off the pipeline -- with little prospect for success. The plain outcome is not to bring pressure to bear on the Soviets or the military regime in Poland, but rather to divide the West. Growing tensions with our West European allies have been all but inevitable over extraterritoriality and the imposition of sanctions. The decision to impose the sanctions has been defended in terms of an ever-changing sequence of disparate and conflicting rationales.

The reason that I raise this question is that such set-backs to the national interest can be avoided through foresight, knowledge, and planning. At the outset of the Administration, there was no effort to develop a serious alternative to the Soviet pipeline that would be plausible to the Europeans. Indeed, the only group with the knowledge to develop such an alternative was the International Division in the Energy Department. For reasons that, at base, reflected the Administration's attitude towards the Energy Department, it was decided to keep the International Division out of the problem. Instead, there was a steady, highly successful, and regrettable effort to reduce the personnel, the role, and the capability of the Division.

The more serious aspects of our current controversies might well have been avoided if proper thought had been taken at the proper time. The United States does not exist alone in the world; nor can it make decisions unilaterally. To effectively interact with other countries on energy problems we shall need to have an appropriate capability in the federal government. We can not rely on bromides regarding the beneficent workings of *laissez faire*.

Mr. Chairman, it is perhaps wise for us to reflect, amid the demise or the postponement of so many major energy projects -- Cold Lake, Alsands, Colony Oil Shale, the Alaskan Natural Gas Transportation System, etc. -- that there is but one today that is forging ahead: the Soviet natural gas pipeline. Whether this points to the steadfastness of the Soviet Union or the incapacity of the Western world to sustain longer-range plans or efforts, I hesitate to say. It is an odd outcome to a decade's alarm in the West over energy.

Mr. Chairman, the proposed reorganization that lies before this Committee has remarkably little support -- public, technical, or political. Even the Administration's Transition Team, with members initially hostile to the Energy Department, concluded after its deliberations that the Energy Department should be continued. The reorganization proposal that lies before this Committee has very little merit. It imposes substantial risks and costs with no discernible benefits. If we examine the issue frankly, we will recognize that the real purpose of this reorganization proposal is to fulfill a campaign promise. Were it not for this political imperative, we would not be devoting any effort either to this examination or to this enterprise. This country has enough to do without wasting time and grappling with mock issues.

Mr. Chairman, once again we rely upon the good sense of the Congress. The suggested reorganization is, at base, a poor idea. I urge this Committee to set aside the proposed legislation for dismantling the Department of Energy -- and to see to it that the Department of Energy is sufficiently strengthened to perform its necessary and legitimate national functions.

Senator **Percy**. Our third witness today is a very distinguished prominent businessman, Pendleton Thomas, chairman and president of PenVest, Inc.

Mr. Thomas brings to this hearing background in virtually every aspect of energy production and conservation. He is the former chairman of the B. F. Goodrich Co. and remains a member of its board of directors.

He also has held senior positions with the Atlantic Richfield Co. as well as other major energy companies. He was also the chairman of the energy committee of the Business Roundtable and was prominent in the powerful business organizations deliberations in the field of energy.

In addition, he is a member of the executive committee of the Alliance To Save Energy, a group of business and community leaders devoted to encouraging greater energy conservation, and, I might say, public officials as well.

The five members of the Cabinet serve as honorary chairmen of the committee. This broad background and expertise makes him a very appropriate witness to address the proposed energy reorganization.

We certainly welcome you, Mr. Thomas. Mr. Thomas is accompanied by Linda Gallagher, executive director of the Alliance To Save Energy, one of the leading advocates of conservation, their spokesperson.

Ms. Gallagher, I certainly invite you to make any opening statements you would like to make and then we will proceed to the testimony of Mr. Thomas.

TESTIMONY OF O. PENDLETON THOMAS, CHAIRMAN, PENVEST, INC., HOUSTON, TEX., ACCOMPANIED BY LINDA P. GALLAGHER, EXECUTIVE DIRECTOR, ALLIANCE TO SAVE ENERGY, WASHINGTON, D.C.

Ms. **Gallagher**. Thank you, very much, Mr. Chairman.

First, the Alliance To Save Energy has, since 1977, been an advocate of strong energy conservation programs. You mentioned our position in favor of the decontrol of oil, and I think that we have seen substantial progress in the rate of improvement in energy efficiency throughout the decade of the seventies as a result of this decision.

We are critically concerned at this juncture that in 1982, a preliminary analysis from the Department of Energy shows that this may be the first year in almost a decade in which the rate of improvement in energy efficiencey across the economy is actually going to decline.

We also see in public opinion polls that the public no longer rates energy as the No. 1, 2, or 3 concern. In fact, they rate the economy, unemployment, and crime as their top concerns now. It is rather ironic in light of the fact that there is such a strong link between investment in energy efficiency and general economic recovery, as Dr. Schlesinger pointed out.

We think that one of the reasons for this is that there has been, in this administration, a lack of strong leadership for energy conservation. So we very definitely support the Percy-Cohen, Cohen-

Percy amendment which attempts, in any reorganization plan, to establish balance and to stress the importance of continuing leadership on energy conservation issues.

We think that there are significant barriers which still exist to tapping energy efficiency, and Mr. Thomas will speak to some of these. But, on the other hand, that there is also substantial support for energy efficiency and for a role by the Federal Government amongst leaders in the private sector.

I would like to touch briefly on some on the more significant barriers that still exist. Not the least of these is the capital shortage and prevailing interest rates. There are other institutional barriers, and I have outlined some of these in my testimony, which I offer for the record. We also believe there is a critical need to continue to pay attention to the problems of the lower and fixed-income part of the population, including the elderly and believe that the most effective kind of assistance that can be provided is permanent assistance in the form of weatherization.

My testimony also outlines areas where we think there is room for bold new initiatives in energy conservation, not merely a business-as-usual approach. We would certainly support Federal funding for energy conservation at least at the fiscal year 1982 levels of $450 million a year. Some very well respected analysts have made the case that the DOE energy conservation programs are only now beginning to really achieve their full potential and achieve the type of impact that they were originally instituted to make.

Many of these analysts say that you can justify, in terms of the energy saved in the Nation, a DOE conservation program at the billion dollar level.

So I would like to conclude by saying that we definitely support your efforts to give leadership to energy conservation and restore a meaningful Federal focus.

We also would be very, very concerned, as Dr. Schlesinger expressed, with whoever is in the leadership position in conservation actually having the support of the administration and asserting leadership. Support needs to be given to the conservation staff to be creative, to be innovative and to be aggressive in pursuing new initiatives. Thank you.

Senator PERCY. Thank you very much, Ms. Gallagher. Now Mr. Thomas, we more than welcome you.

Mr. THOMAS. Thank you, Mr. Chairman. I am pleased to have the opportunity of giving my views on energy policy and energy organization in the Federal Government.

For your information, I am chairman of PenVest, Inc., 515 Post Oak Boulevard, suite 225, Houston, Tex. 77027. My company is engaged in financial services. Previously, I was chief executive officer of an energy supplier, Sinclair Oil and chairman of the executive committee of Atlantic Richfield following the merger of Sinclair and Arco and, more recently, chief executive officer of an energy user, B. F. Goodrich. Also, I have served and I am presently serving on several corporate boards of directors. In addition, I served for a number of months as chairman of the energy task force of the Business Roundtable.

I would like to support what Linda has said as it relates to conservation, and being both a director and a member of the executive committee, of course, I have a great interest in conservation. I would like to report to you that I am a businessman, not an economist. I am here in my capacity as a businessman.

As I see it, the perceived need for a Department of Energy resulted from Government-enacted regulations and controls. Without such regulatory controls, there would have been little need for a Cabinet-level position and, absent such controls and restraints, a substantial Federal Government organization could not be justified today. The energy regulatory concept has a history at both the State and the Federal levels. The Texas Railroad Commission was given certain regulatory responsibilities over oil production in Texas during the thirties when supply exceeded demand. The Federal Power Commission originally was designed to regulate, among other things, the transmission of gas in interstate commerce.

It was not until the *Phillips* decision in the fifties that its authority was extended to the regulation of gas at the well head. The justification for establishing the energy Cabinet-level position appears to have been derived, to a large degree, from controls established during the Nixon administration and the subsequent continuation of controls over usage and prices of gas and oil products along with the attendant entitlements program.

In my judgment, artificial controls have never worked other than during temporary periods such as during wars and other emergencies. I do not feel that they have in this instance nor that we can expect them to do so in the future. The free market system is the only proven method for balancing supply, demand and price, and Government regulations will not serve as a satisfactory substitute. What we continue to need, in my opinion, is a return to the basics—that is, the removal to the maximum extent practical of restraints and controls and a return to a free energy economy.

In my judgment, the regulatory process should only be continued when competition is impractical, such as in the distribution of gas to the residential sector. On the other hand, there is ample competition in the exploration for and the development of gas supply and, hence, no regulations at this level should prevail.

As I see the energy policy being pursued by the administration, it is founded on the sound premise of utilizing the free market system as its cornerstone. While this is an excellent approach as far as it goes, I think we need a broader set of strategies. Some of these strategies should logically go beyond free enterprise, even though it might be argued that they relate to the free enterprise and the free market system. Conservation is one and energy preparedness, in my judgment, certainly should be included.

The executive branch of the government with help from Congress has recently made significant reductions in regulations and controls, but I feel that a full review of all remaining energy regulations should be undertaken. When the set of energy strategies and objectives has been developed by DOE, and when the full review of regulations has been completed, then I would advocate the dismantlement of DOE with any of its necessary remaining functions assigned to some other department of the government.

It would be inadvisable for me to undertake a superficial discussion of energy deregulation, but I think you can tell from what I have already said that I think that natural gas should be completely decontrolled, phased in over no longer than a 2-year period, and that includes both price and restrictions on usage.

Restrictions on usage should be repealed immediately. It is my suggestion that DOE, in conjunction with the development of a set of energy strategies, review all Federal energy regulations and that a positive recommendation, with supporting reasons for such a position, be documented for each continuing regulation.

There could hardly be a better time to decontrol gas prices because there is a surplus of domestic producible gas at the present time, and my friends in the energy business tell me we probably will see little overall change in gas prices if decontrol takes place. This does not mean, however, there may not be changes on both ends of the orice spectrum; prices on the low end probably will increase when contracts permit and prices on the upper end, that are unrealistically high, should come down.

The removal of restrictions on gas usage will permit gas to be burned under boilers instead of oil, resulting in some reduction in the importation of oil, thus benefiting our balance of payments deficit and improving air quality. In addition, exploratory drilling will undoubtedly pick up if there is a market for gas that is presently shut in bringing about an improvement in both oil and gas reserves.

The type of energy to be consumed and the amount consumed should be determined by the free market system, operating with minimum controls and regulations. When restrictions and price controls apply, excessive demand can result from excessively low prices, coupled with the lack of an incentive to reduce consumption. When oil and gas prices were relatively too low during the preseventies period, users of oil and gas could not justify the additional cost of more efficient energy consuming facilities and, hence, we squandered our nonrenewable energy reserves in this country. This resulted from the fact that energy prices were determined by the price of gas which was set at an artificially low level by Government regulation. To a degree, this same condition still prevails today.

As an aside, it worries me that our Government will approve prices for imported gas that are significantly higher than prices permitted for domestically produced gas. This represents discrimination against our own citizens who carry the tax burden of this country and in favor of those who do not. As a matter of fact, about 57 percent of pretax income of U.S. petroleum companies goes to the Federal Government in the form of taxes and this does not include significant taxes of one kind or another paid to the States. Thus, even without a windfall profits tax, much of any increase in the price of gas under decontrol would be paid out in taxes.

As I have previously indicated, before DOE is dissolved, I think a set of energy strategies should be developed which should be viewed as an energy program for the Nation. Such a program must have the general support of Congress, the administration and the business community for it to be carried out and for it to be effective. For this reason, such strategies must be developed on a cooperative basis with participation by important stake holders, but I am in favor of having it done under the auspices of DOE.

I would like to put in the record a national energy policy for the United States developed by Governor Clements of the State of Texas. I put it in the record not because it advocates a continuation of DOE, with which I am in disagreement, but because of the fact that it enumerates a group of very important and significant energy strategies which I think should be considered by the Congress and the administration in connection with its review of strategies.

Senator PERCY. We will insert that in the record.

[The material referred to follows:]

A NATIONAL ENERGY POLICY
FOR THE
UNITED STATES

Proposed

by

William P. Clements, Jr.

Governor of Texas

July 1982

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A NATIONAL ENERGY POLICY FOR THE UNITED STATES

Executive Summary

The United States needs a sustained and stable national energy policy and an organization to develop and maintain it. This is necessary for three reasons: 1) there is considerable uncertainty concerning the future of world oil prices, which for the foreseeable future will greatly influence all other energy markets; 2) the strategic interests of the U.S., and indeed the world community, call for both further reductions in imported oil and increased security of oil supplies; and 3) long lead times dominate the development of major substitutes for oil, especially synthetic fuels.

Our national energy policy objectives should be: 1) to have sufficient energy supplies used prudently and with appropriate protection of the environment; 2) to ensure the full economic and social development of the U.S. for the foreseeable future; 3) to minimize our exposure to the disruptive effects of oil shortages from OPEC embargoes, war or political upheavals in major producing countries; and 4) to make the transition to a new energy base with as little internal disruption as possible. The focus should be on a long-term plan that is consistent and looks beyond the current fluctuations of the world oil market.

The U.S. continues to be overly dependent on foreign oil, with its negative effect on trade balances and the attendant security and economic risk from any major oil supply interruption. Our interrelationship with other free world nations, many more dependent on imports than ourselves, creates a situation where energy demand and cost, as well as security considerations, are of mutual international concern. It is vital for the U.S. to have a national energy plan with appropriate updates; to examine regularly the total of energy market actions influencing future energy supply and demand; and to provide government support where the market cannot be expected to achieve national objectives. The goal should be a secure energy future for America, capable of supporting our growth and prosperity over the long term.

Maximum reliance should be placed on the private sector and a free market system to develop energy sources, price products, and distribute energy. Decontrolled markets for the major components of current U.S. energy sources, oil, natural gas and coal, are essential to the achievement of our national energy objectives. Only coal is now fully free of price regulations. Domestic crude oil prices are restricted by the Windfall Profit Tax and almost all categories of natural gas are constrained by government price ceilings and other regulatory impediments.

But decontrolled markets for these essential energy sources, while necessary, are not sufficient to achieve our national energy objectives when strategic interests are taken into account. Even when full decontrol is achieved, there remains an important and essential role for government to play in achieving our national interests. Important strategic interests simply will not be achieved by free markets operating alone. There are things the market place will not do. Government can and should set the broad framework within which free markets can function to serve the national interest.

All indications are that domestic oil and natural gas will be a declining fraction of our future energy supplies. As the transition to new major energy sources occurs, new technologies with high technical risk, large front-end investments and early high unit costs will likely either preclude projects from meeting the test of private sector return on investment (ROI) or exceed the private sector's financing capability, or a combination of the two. Here appropriate federal support should be cautiously provided within the goals and broad outlook for achieving the national energy objectives. A corollary objective shall be to obtain imported oil and gas from geographic areas less vulnerable to supply interruptions, war and/or political upheaval. Western Hemisphere sources should be fully developed through mutually agreeable trade programs that might involve additional bilateral agreements.

A strong Department of Energy (DOE) is necessary to carry out such responsibilities and further define the components of a national energy policy. The following pages define needed DOE responsibilities. A stand-alone, cabinet level department is needed in order to ensure priority attention to energy policy through the President's Office as matters of the domestic economy, foreign trade and national security are considered. A cabinet level department is needed in order to sustain a "critical mass" of expertise in energy. One may argue that alternative government departments can achieve these goals and that the creation of the Department of Energy was a bad idea. But, as a practical matter, it is doubtful that the Congress will, in fact, dissolve DOE. Provisions should, therefore, be made for a trim and restricted DOE with strong leadership to focus the government's efforts on achieving our national energy objectives in areas where the operation of free markets does not suffice.

I. Current and Past Approaches to National Energy Policy

During the 1970s, the world sustained two major economic and political shocks from oil supply disruptions and sharp price increases. The result has been two serious economic recessions, slowed economic growth, depression of needed capital investments, general price inflation and high unemployment. Further, the excessive dependence of the U.S. on foreign oil supplies has increased our strategic vulnerability, forcing us into expensive new strategic positions at a time when we could ill afford it. We still face the possibility of repeating at any time the two prior experiences.

A free market for domestic oil and gas alone can not deliver us from this threat. The decontrol of these markets can encourage conservation, maximize the development of domestic oil and gas, and speed the transition to alternate sources of energy in the most efficient manner. However, free markets can not, in the time period necessary, ensure technology development of synthetic fuels, nuclear power, various renewable energy sources and fully develop our potential for a major coal export market. The competitive rate of return on investment, which is the governing force of private markets, precludes the major front-end investments required to bring many of these technologies to the market place.

During the 1970s, successive administrations gave high priority to national energy policy formulation. However, in many respects these policies were misguided. In the early 1970s, price and allocation controls were imposed on crude oil and oil products. A Department of Energy was formed in 1977, and several major national energy acts were passed, including the National Energy Act of 1978 (five bills), the Emergency Energy Conservation Act of 1979, the Energy Security Act of 1979, and the Crude Oil Windfall Profit Tax Act of 1980. The Energy Mobilization Board Act of 1980 was proposed by the Carter Administration but failed to pass the Congress. As a general matter, this legislation and the approach of the Carter Administration involved major, detailed intervention by government into energy markets through attempts to regulate uses of energy, control prices, allocate supplies, and dictate standards to be followed by the private sector. Research activities of DOE covered the entire research spectrum, including basic research, development, demonstration and commercialization stages. The government approaches of the 1970s were often conflicting and counterproductive and failed to develop a secure and stable energy policy for the U.S.

The Reagan Administration, in contrast to interventionist approaches of the prior administrations, has called for the freeing of government involvement in private sector energy markets. The Administration has called for the deregulation of energy industries as its primary energy policy. It has also called for the dismantling of the Department of Energy. Significant reductions in energy research funding have been made. President Reagan completed the job of deregulating the oil market some eight months before full deregulation was scheduled to occur, and a number of regulations on industry have been removed by Administrative action. A proposal to deregulate the natural gas market has been prepared by the Administration but delayed several times due to economic program priorities and the unlikely chance that Congress would pass such legislation this year. The Synthetic Fuels Corporation was reorganized under the Reagan Administration following a brief, hurried beginning under the Carter Administration, and the organization has taken a more deliberate pace in establishing synfuel projects. In short, the Reagan Administration has assumed that the free market will accomplish all that is needed in dealing with energy problems: i.e., energy production, consumption, import levels and development of new technologies will be adequately guided by market pricing of energy.

Thus, over a five-year period, the Federal government's approach to national energy policy has changed from one of excessive intrusion to excessive laissez faire. But more is required to serve the national interest than simply deregulating energy markets because of 1) the instability of world oil markets, 2) the strategic interests of the United States, 3) the long lead times for the development of alternative technologies, and 4) the inability of private industry to secure an annual competitive return on investment in alternative technologies.

II. Needed Direction

Because the transition to a new energy base and the world dependence on OPEC crude oil are long-term problems, we must decide on a sustainable, stable approach to energy policy. And, we must have strong leadership in a cabinet level Department of Energy to develop and maintain such a national plan and to coordinate among several energy-related federal agencies and the states.

Disappointments in the performance of DOE to date derive from misconceptions and misdirections in mission and functions. The agency was formed primarily by combining several existing agencies or departments, many of which are only remotely related to national energy policy formulation and technology development. As a result, few new resources were added to address the basic energy problem. For example, about 25% of the DOE budget, which ran at $10-12 billion annually from 1977-1980, was for the military nuclear weapons program. The organization and funding of DOE has been inconsistent with what has been needed to accomplish national energy objectives. Management of diverse and sometimes competing functions is scattered among an independent Energy Information Administration, an independent Federal Energy Regulatory Commission, the Economic Regulatory Administration, and the various policy and research functions under direct control of the Secretary's Office.

Despite substantial consolidation of energy activities in the Department of Energy, U.S. energy matters are still handled by many federal agencies. Coordination among various agencies to achieve a centrally directed focus on a national energy plan has not developed. Energy policy remains fragmented.

The Department of Energy needs to have strong leadership, develop credibility within government, instill confidence of industry and the public at large, and be charged with legislative and administrative directives along traditional public sector roles to achieve national energy objectives. DOE functions should include data gathering on energy markets, projections and analyses of policy options, research on new technologies, management of the Strategic Petroleum Reserve, and be an advocate for solutions to energy problems which affect many aspects of domestic and foreign policy. Most of the remaining regulatory functions involving price controls, fuel use restrictions and allocation authority should be removed from DOE responsibilities by repealing the Acts (especially natural gas price controls and regulations) which create these intrusive and inefficient government functions.

In short, the national energy objectives should be pursued by a central agency, existing at the highest level of the national government, with the ability to develop and implement a coordinated energy plan encompassing all aspects of energy, including its important international dimension.

III. Objectives of National Energy Policy

Our national energy policy objectives should be: 1) to have sufficient energy supplies, used prudently and with appropriate protection of the environment; 2) to ensure the full economic and social development of the U.S. for the foreseeable future; 3) to minimize our exposure to the disruptive effects of oil shortages from OPEC embargoes, war, or political upheavals in major producing countries; and, 4) to make the transition to a new energy base with as little internal disruption as possible.

IV. Method For Achieving National Energy Objectives

The national energy objectives can be achieved by the establishment and maintenance of a National Energy Plan (NEP) and provision for its implementation. Since the future of our energy status will largely be a function of private sector actions and market determinations, within the policy framework set by government, no one can determine with great certainty quantitative supply, price, or demand for specific energy sources. Nor can specific breakthroughs in technology be accurately forecast. Nevertheless, the range of uncertainty can be reduced, thereby providing support for the maintenance of a stable energy policy. Major components of the energy system, particularly those requiring public understanding and support, need to be highlighted, monitored and modified as developments warrant. Thus, NEP must not be rigid in the classic interpretation of a "plan". NEP can best be developed and maintained through a series of strategic programs, some of which may have a finite life and can be discontinued in the future. Others may be added as conditions require.

The initial NEP strategies are:

1. A Management Strategy.
2. A Strategy of Preparing Quantitative Energy Projections.
3. A Strategy for Optimal Oil and Gas Development.
4. A Strategy for Aggressive Coal Development, Usage, and Export.
5. A Strategy for the Safe and Increased Use of Nuclear Energy.
6. A Strategy for Monitoring and Encouraging Conservation.
7. A Strategy for Federal Research and Development in Emerging and New Technologies.
8. A Strategy for Synthetic Fuel Development.
9. A Strategy for Emergency Preparedness.
10. A Strategy For Auditing and Reporting on the Effectiveness of NEP.

Any effective national energy plan must be underpinned by systematic, consistent efforts to educate the public about energy problems, issues and policies.

V. Underlying Assumptions

The strategic programs described below are based on several assumptions about world energy markets, technological developments, and political factors.

1. For the foreseeable future OPEC, and/or wars and political upheavals will continue exercising considerable influence over world oil markets. OPEC pricing and production decisions and disruptions affect our ability to have stable energy markets and a smooth transition to an alternate energy base.

2. There are substantially more oil and gas reserves to be found and produced in the U.S. at current and higher prices. Declines in oil prices from current levels will render some reserves uneconomic when the cost of production and alternatives for investment are taken into account.

3. Still further improvements can be made in the conservation of energy in the U.S.

4. There is considerable flexibility or substitutability among various energy sources over the long term, although there are certain inherent limitations; for example, nuclear power can provide electricity to substitute for oil, gas, and coal but cannot directly replace liquid fuel requirements for our transportation system.

5. Energy resources will continue to play a major role in the formation of international trade relationships and national security strategies.

6. Major energy production from synthetic fuels will not meet the market test of rate of return on investment by the private sector in the near term.

Energy policy development must take place within several existing basic functions of government. These basic functions established by the Constitution or by historical precedent include 1) the provision of national security, 2) the provision of full employment, 3) the maintenance of stable economic growth, 4) the protection of the environment, 5) influence on the distribution of wealth through government programs and the tax structure, 6) the sharing of governmental responsibilities among federal, state, and local units of government, and 7) the maintenance of individual freedom of choice. Traditional objectives of all Administrations in recent history have also included the control of inflation and general price stability.[1/]

VI. Strategic Programs: the Components of a National Energy Policy

1. Management Strategy

The diverse and pervasive position of energy in our national and international affairs requires a Cabinet level department with a primary charge of developing and maintaining a National Energy Plan and directing its implementation. An outside oversight group should be created to ensure strong interaction and coordination with the private sector and state and local governments. Since various regions and states are greatly impacted by national energy policy decisions, a strong management emphasis should be placed on mechanisms for state and regional involvement in decision-making. Such an approach will ensure that impacts at a subnational level are properly understood and accounted for in policy-making. A properly sized and managed DOE is required to maintain a national data system, provide projections and analyses with the most sophisticated techniques available, provide assessments of the limitations of private markets to achieve the national energy objectives, provide a highly visible advocacy position for coordinated energy policy in the federal government, manage a R&D function to encourage new technology development, and provide coordination among the many federal agencies having energy-related responsibilities.

[1/] Various policy "tools" have been used historically by government to address national problems. There has been and will continue to be debate over the appropriateness of some of these tools for energy policy; nonetheless, they are options and the government power to use them exists. Among the energy policy options used in the U.S., price ceilings and allocation controls have proven to be dismal failures. Other options better serve to augment the operation of free markets. The range of policy tools available to the U.S. government include 1) price ceilings and allocation controls; 2) price supports, purchase agreements, loans, and loan guarantees; 3) tax incentives and tax disincentives; 4) foreign trade policy, including embargoes, quotas and fees; 5) non-price regulation; 6) research and development; 7) distribution of policy authority among various levels of government; and 8) information/data collection, analysis, information dissemination and education.

The pervasive nature of energy means that all energy functions are not and can not be placed in one department. For example, the Department of Transportation is responsible for fuel efficiency for automobile manufacturers and mass transit incentives; the Department of Agriculture is responsible for the development of alcohol production from crops and plants; the Interstate Commerce Commission is responsible for regulating freight rates for coal transportation; the Nuclear Regulatory Commission is responsible for licensing nuclear power plants and waste disposal; the Department of Interior is responsible for the leasing of federal lands for oil, gas and coal development; the Department of State is involved in international energy trade policy; and the Department of Defense is responsible for dealing with our vulnerability to oil supply interruptions. However, a strong DOE is necessary to focus and coordinate energy policy.

Disappointments in the performance of DOE to date derive partly from the fact that the agency was formed primarily by combining several existing agencies or departments. At its creation in 1977, the new DOE contained, by percent of employment, 45% from the Energy Research and Development Administration (made up chiefly of the previous Atomic Energy Commission), 27% from the Department of Interior (primarily the Bonneville Power Administration and several other power administrations), 20% from the Federal Energy Administration, 7% from the Federal Power Commission and 1% from new employees and other sources. The funding for DOE, which was at $10-12 billion in actual obligations for FY 1978-81 was 24% for military nuclear weapons programs; 38% for all forms of energy research and development, including the national laboratories; 17% for energy production, power marketing and uranium enrichment; 15% for energy emergency preparedness programs (including the Strategic Petroleum Reserve); 2% for data gathering, analysis and regulation; and the remaining 4% for management and other activities.

In a government where energy policy is inevitably diffused and where the Department of Energy is responsible for diverse operating functions, extraordinarily strong policy leadership is required if a National Energy Plan is to be formulated and executed.

2. Strategy of Preparing Quantitative Energy Projections

Title VIII of Public Law 95-91 (the Department of Energy Organization Act) requires that a biennial National Energy Policy Plan be submitted to Congress. The third plan was submitted in July 1981. This report, with its specific policy recommendations and quantitative projections, can be an important reference tool. The projections included in such plans should not be construed as limiting our options, but rather as the best current estimates considering the present and future status of supply/demand and the lead time for energy sources in transition. Given the engineering and construction lead times for new and existing technologies, the projections should be carried twenty years out and should include, but look beyond, current "glut" or "shortage" influences in the markets.

Recent changes in the world oil market lead to the conclusion that uncertainty exists in projections of global energy consumption, production, and price. The real rate of growth in the world economy is likewise uncertain, the U.S. and global energy consumption and economic growth relationships are changing and, for these reasons and uncertainty of OPEC cohesion, the international oil price outlook is uncertain. DOE can provide continued foresight capability to improve our understanding of the long-range outlook for U.S. and world energy markets. DOE should focus more attention on the world energy market outlook since the energy problem extends and is complicated by production, reserves and consumption levels beyond the boundaries of the U.S.

It would be most imprudent for the U.S. to build its energy policy on the assumption that the current oil glut will persist and prices progressively fall. Therefore, there is a current and continued need for DOE to improve its foresight capability for the U.S. and world energy markets, and for the Nation to adopt long-term strategic programs in several energy resource areas as outlined below and to propose specific policies consistent with these program objectives.

3. Strategy for Optimal Oil and Gas Development

Price controls and government allocation of supplies have proven dismal failures in energy as with other markets. After ten years of government regulation, oil is now decontrolled. Recent oil price levels are much closer to oil equivalent replacement levels than during the price control era of the 1970s.

We generally recover only one-third of the oil in place. Initiatives to continue developing improved recovery techniques should result from the institution of a free-market price policy.

Natural gas at the well-head should likewise be decontrolled with no mandated price ceiling so that market forces can set the price of this commodity at a market clearing level. All natural gas sales at the well-head should be decontrolled by 1985 with a minimum of incentives for special situations. The windfall profit tax on oil is not justified based on present and projected cost of replacing reserves and has a detrimental effect on our oil independence objectives. The tax should therefore be repealed. The cost of developing new natural gas reserves is a similar case and gas decontrol should not be accompanied by a windfall profit tax. Government restrictions on the use of and access to oil and natural gas by all purchasers should be eliminated. Since oil imports bring with them considerable economic and strategic risks, the import price does not properly represent the full cost to the U.S. of importing oil. An oil import fee could be structured to incorporate this risk factor, thereby encouraging a faster rate of decreased dependency on imports. Such a policy should be examined. Long-term trade relationships in oil and gas markets with countries in the Western Hemisphere should be encouraged.

An intelligent and active policy for access to federal lands for oil, gas and coal development should continue since a major portion of U.S. potentials are located on federal lands. The lead agency here is the Department of Interior and close coordination between DOI and DOE should be maintained.

4. Strategy for Aggressive Coal Development, Usage and Export

Coal constitutes 94% of our fossil fuel resource base but only 32% of current fossil fuel supply. Coal has declined from over 50% of our total energy usage in 1950 to 20.5% in 1980. At the current 20.5% level, usage is up only two percentage points from 1977. Coal should play a more important domestic supply role as well as become an important export product. The decontrol of natural gas will further enhance the comparative economic value of coal at the minemouth where it is already favorable to oil on a BTU basis. The economics of transportation, however, would improve from free market competition among transport systems, including road, rail, barge and slurry pipelines. The total transport requirement for coal must be examined over the long term assuming a major growth in coal production. Competitive long-range transport systems such as pipelines need legislative action allowing the right of eminent domain. Environmental considerations regarding the use of coal must, and can be, safely tempered with full public understanding of the need for increasing the use of this fuel in our supply mix of the future. For example, the requirement that best available technology be applied to scrubbing the emissions from coal burning in electric power plants regardless of sulfur content should be changed. Export of U.S. coal has an important economic potential and should be pursued. Furthermore, coal export may be of strategic importance to the U.S. and should be developed to its full potential.

5. Strategy for the Safe and Increased Use of Nuclear Energy

The stagnated status of nuclear electric capacity expansion requires both private sector and government action. Inflation and the cost of money must be reduced to make new construction more attractive. Standard and modular design of the current technology (light water reactor) nuclear plants can further reduce capital costs and duration of construction time. The private sector should be encouraged to pursue these design approaches vigorously and the NRC should incorporate such designs into its licensing procedures. The desirability of recycling spent fuel and storing the remaining high-level waste needs appropriate resolution to eliminate this uncertainty regarding additional nuclear capacity.

Breeder and fusion technology are the types of major research investment that require government support, especially fusion which is in the early research stage. These technologies should be funded as their needs in the future are assessed within the framework of the periodic National Energy Plan report. There should be a special study of energy sources and needs beyond twenty years when breeder and fusion technology could be expected to move into the production stage.

6. Strategy for Monitoring and Encouraging Conservation

Energy consumption per capita in the U.S. has declined from 62,400 BTU per GNP dollar (1972) in the early 1970s to 49,000 BTU in 1981, largely from the effects of increased energy prices. Conservation of energy does take place in an energy market that reflects the cost of energy and the free choice of the private sector, given options regarding various energy supplies available at market prices. We must also recognize that changes in energy consumption occur from changes in production methods and capacity utilization in the industrial sector as well as the end use of energy by consumers. For example, recycling of aluminum rather than relying solely on its primary production results in substantial energy savings. These changes in process options and use of energy will be resolved mostly by technological innovation stimulated by market prices for energy. Government R&D is appropriate on the conservation technology side only when it can be demonstrated that the private sector will not undertake such investments because of long lead times, less than market rate of return on investment, and/or large capital requirements — the same test which supply-side R&D must pass.

The federal role in conservation, other than R&D, should be primarily limited to educational programs phased out on a planned schedule as the public becomes more knowledgeable about energy saving systems and techniques. The focus should be on sectors which do not have well-organized and financed information transfer systems. Energy impact assistance to low-income groups should be evaluated only as one factor in the cost of living and is not an energy policy issue. Low-income assistance functions are the responsibility of several human resources agencies and should be implemented in coordination with DOE for energy cost information purposes.

7. Strategy for Federal Research and Development (R&D) in Emerging and New Energy Technologies

As in other areas of government concern, the private sector must carry a major burden of energy R&D. All new energy sources must be able to meet the test of comparative cost and value at some point in time. Research support and demonstration assistance should be provided by the federal government for those emerging technologies that promise both to provide a reasonable fraction of our energy needs as well as to meet the comparative cost test.

Government funded R&D is highly important to the identification and long-term development of new energy technologies. The long-term energy future of the U.S. is highly dependent upon today's commitment of R&D for basic energy research. A strong R&D effort should be maintained, with periodic reevaluation of high priority research areas.

While an all-out production effort for existing technologies must be our high energy priority for the near term, we must immediately proceed with R&D in other potential energy sources, including unconventional oil and gas recovery, breeder and fusion technologies, nuclear waste disposal methods, solar, geothermal, biomass, wind, and the development of synthetic oil and gas. Expansion of development activities for exploitable resources must be accompanied by the return of energy markets to a nonregulated status, so that true opportunity costs will be reflected in bidding, exploration, production, consumption and investment decisions.

8. Strategy for Synthetic Fuel Development

Congress passed the Energy Security Act in late 1979 to provide up to $68 billion for government-backed commercial synfuels plant development during the 1980s. A target of 2.0 mm/bd by 1992 was set from such plants. This objective was to be achieved by the Synthetic Fuels Corporation (SFC) established by the Act. So far only a few projects have been approved for government support, contingent on a phase II test to be met during 1982. The current decline in world oil prices has already precipitated the cancellation or postponement of several large plants; further declines will greatly delay the needed completion of a first generation set of such plants.

The major problems with synthetics are that the initial unit production costs exceed those of competitive energy sources, and the front-end capital costs are extensive. Risks for such plants with long construction and pay-out schedules in a complex regulatory environment make it virtually impossible to finance such investments under normal financing arrangements. The recent cancellation of the Colony oil shale project in Colorado underscores this conclusion.

The Synthetic Fuels Corporation, now operational by Executive Order of the President, has resources and a broad latitude of policy tools at its disposal, including: 1) direct cost sharing, 2) loans, 3) loan guarantees, 4) price supports, and 5) purchase guarantees. Timely use of these tools, especially purchase guarantees and price supports, should be implemented by SFC to bring a small number of synthetic fuel plants to an operational state. Only through the actual experience of construction and operation of several plants can we know the construction time requirements and by how much the costs of operation can be brought down. A key element of such government support is the provision of sanctity of contract arrangements by the government.

9. Strategy for Emergency Preparedness

There has been a continuing debate in the Congress over the need for and structure of an emergency plan to deal with oil supply disruptions. Price controls and allocation mechanisms by government largely serve to amplify the shortage problems and focus the shortage on low priority sectors. Government should resist the temptation and public pressure to implement such control mechanisms.

Low oil import levels should be the strategy for the medium and long terms to reduce the likelihood of emergencies. We should emphasize the desirability of obtaining oil imports from consistent, secure exporters and be prepared to establish strong bilateral trade and other relationships with these suppliers, especially those in the Western Hemisphere. High private sector reserves and a full SPR should be pursued for the near term, but these actions will not totally insulate the U.S. from the impacts of an oil supply disruption. The U.S. is a member of the free world community that will remain dependent on OPEC oil for the foreseeable future. The U.S. should work for reductions in imports by other nations through an active International Energy Agency.

Our need for and the level of our Strategic Petroleum Reserve should be reassessed periodically. Such assessments should include the status of any "cushion" inventory or shortage that may exist in inventory held by the private sector. Such analysis should also include increasing production capability for liquid fuels from synthetic sources.

In short, the U.S. emergency preparedness strategy should emphasize decreasing U.S. vulnerability to oil supply disruptions and related national security problems by a combination of short, medium and long-term approaches. In the short term, the Nation should maximize production from our own resources, maintain the Strategic Petroleum Reserve and monitor private sector inventories. In the medium term, the U.S. should develop bilateral trade relationships with stable sources of supply, especially those in the Western Hemisphere. For the long term, the U.S. should strive toward the goal of becoming a net energy exporter.

10. Strategy for Auditing and Reporting the Effectiveness of NEP

The results of the Nation's efforts to carry out a National Energy Plan should be periodically assessed. Reporting of achievements (and failures) should be a continuing function of DOE. The Congressional and the Administrative Branches should periodically audit DOE's efforts in formulating NEP and directing its implementation. Only by this management mechanism of clear reporting and auditing can corrections and new directions be formulated with wide support.

VII. SUMMARY

Our national energy objectives have implications for our future economy, life style and national security equal to or greater than other major policy areas of concern to the federal government. While our future needs and supplies of energy will be largely determined by decisions and risks taken by the private sector, we can determine that certain desirable actions will need government support and encouragement. National energy policy can make a major difference in our future direction. Considering the long lead time required to bring about major energy transitions, those areas requiring action need to be identified as early as possible. This can be accomplished through the existence of a National Energy Plan—not a rigid blue print but rather a general guide that can be modified as required and routinely updated. A properly prepared and high caliber federal oversight function by a cabinet-level Department of Energy can serve to improve public understanding as to choices and costs as well as help identify major strategic actions that can be undertaken by government to serve the national interest.

Mr. THOMAS. I do not desire to have in my statement "A program to reduce imports" to be put in the record, because you were good enough to put it in the Federal Register in January 1980, but I would like to call attention to it and say that it still contains what I think are some pretty important strategies which should be considered in setting up this policy and program.

It must be a balanced program that reflects the important contribution that each form of energy can and must make to our requirements now and in the future, if we are to be competitive in the economic environment of the world, and if we are to continue to improve our own standard of living, at the same time helping the lesser developed nations of the world improve theirs.

I want to cite just two examples of provisions that should be incorporated in the program. First, conservation merits special consideration. Prices established in a free economy will represent a conservation incentive, but I feel that there are additional conservation objectives that can and should be included. I would like to refer to Linda Gallagher and the alliance as sources for such conservation measures.

Second, problems related to nuclear waste demand immediate attention to restore some semblance of public confidence in our nuclear program.

The development of balanced energy strategies that consider the strengths and weaknesses of our energy assets and our economic system won't be easy. Based on recent Washington experience, it would appear almost impossible to get agreement on such a complicated matter involving such a diverse group of interests. I believe, however, that an acceptable balanced energy program can be developed that will reduce the reliance of our country on external energy sources before the end of this century.

It is my view that many of the energy programs that I have seen have been biased to conform to the philosophies of the authors. Most of them make some good points, however, that should have a place in a more comprehensive balanced program. Under sound and competent leadership, I am confident DOE can put together a program that is not skewed and that, at the same time, recognizes the practical strengths and limitations of all energy forms.

As I have already indicated, I am of the opinion that dissolution of DOE should occur when the administration and Congress are satisfied that all energy regulations have been reviewed and eliminated to the maximum extent practical degree, and energy strategies based primarily on a free market are in place. When this has been accomplished, the extent that energy positions are needed in Commerce and other departments of the administration can be determined in the light of the then-existing conditions.

It seems to me that countries with big Federal energy organizations, such as Canada and the United Kingdom, have created more energy problems for themselves than they have solved. Taking a lesson from experience, I hope that we will not provide for any departmental function that is not clearly essential when DOE is dissolved.

Mr. Chairman, thank you for the opportunity to come before the committee.

Senator **Percy**. I thank you very much indeed for a strong and helpful testimony.

Senator Cohen, I would be happy to yield to you.

Senator **Cohen**. I have a couple of questions.

Mr. Thomas, you indicated that you were saddened or shocked by the fact that the American Government would approve higher prices for imported oil but not for domestically produced oil. What if the OPEC nations were to raise their oil to $100 a barrel? Would you then support allowing domestic producers to raise theirs to $100 a barrel?

Mr. **Thomas**. I think we can't take that out of context with everything else that is going on in the world. I'm not sure if they raise the price $100 a barrel that there wouldn't be a lot of other mitigating circumstances that brought that about.

I feel that if we are going to carry on a viable U.S. exploration and producing industry that our industry must have the opportunity, really, of operating in a competitive environment and competetive array. The tax structured system is such that I think that it shouldn't be treated any differently than the steel industry or anything else.

The steel prices of the world today are set by foreign producers, and if they should raise their steel prices, I think our American steel industry ought to be permitted to get out there and raise the prices to the degree that market conditions will permit it.

Senator **Cohen**. Do you know if the OPEC prices have been based upon market conditions or whether they, in fact, have been extortionists of pricing policies that were set back in 1973?

Mr. **Thomas**. I think some of both. I think they have certainly tried to utilize their leverage, but we are now seeing a return to a more normal economic situation whereby supply and demand is having a material influence on the world price of oil and gas, and I hope that continues.

Senator **Cohen**. But, in fact, due in part because of a conservation program undertaken in this country.

Mr. **Thomas**. One of the reasons I am in favor of a conservation program is I think it is a very essential element, and I am very much in favor of a continuation of the alliance and also a continuation of not only an attitude, but an organizational structure that will permit continued emphasis on conservation.

Senator **Cohen**. But what you seem to be suggesting at least was that as soon as DOE achieves this review process to see which regulations ought to be discontinued and which policies ought to be formulated, you would like to see it dissolved. It reminded me of a sort of gradual withering away of a state, which was originally proposed for a major advisory, that we achieve the goals and then wither it away. It seems to me there can be no withering away of the Department of Energy or of an energy policy; that things in the country will not be static. They will constantly be shifting. Secretary Schlesinger was pointing out that if we had an alternative energy policy to present to our allies, we perhaps would not be confronting a major pipeline contribution with the Soviet Union.

To the extent that we are constantly going to be living in a world of shifting realities, it seems to me you cannot formulate a single energy policy today that is going to take into account the exigencies of tomorrow.

Mr. THOMAS. I certainly didn't mean to imply that I think energy is not an important element of our industry and business complex. I do feel that it is very important. I just question whether or not that we should have a Department of Energy when we don't have a Department of Steel, as an example, which is also a very significant and important element of our overall industry.

As a matter of fact, it bothers me today that we are shutting down all of our steel plants, and if we should have, in case of a war, a real emergency develop, we might not have the capability of producing the armament this country needs. It just depends on where you place the emphasis. It can be done, in my judgment, in the Department of Commerce, as an example, just as it can in the Department of Energy. Do we need to continue a special Department of Energy in order to keep that emphasis alive and well and going forward?

Senator COHEN. In your mind you are associating steel with the same importance of energy itself?

Mr. THOMAS. Not necessarily, but I consider steel a very important part of our industry economy. I wouldn't like to try to put in order a preference all of our industrial, parts of our industrial——

Senator COHEN. We may have to find substitutes to steel. Steel needs chromium to be made. That is Rhodesia, formerly Rhodesia, and the Soviet Union. We might not have access to cheap chromium, and we might have to find alternatives to steel. But there is no alternative to energy. Energy is like an underground stream. You may not always see it, but you need it in the country to function.

Mr. THOMAS. May I change my reference to metals, then, because that is what I really meant, because steel is a mixture of a number of metals, as a general rule, and I was really referring to metals. I have been working with energy all my life, and I don't mean to imply energy is not a very important part of, or to correct myself, the most single important aspect of the economy. That is the way I feel about it, but I don't know that we necessarily have to have a Department of Energy in order to give or get the viability that I think that it needs or deserves.

Senator COHEN. Go ahead, Mr. Chairman. Thank you.

Senator PERCY. Thank you, Senator Cohen.

I agree, Mr. Thomas, that price is a very important factor in encouraging people to conserve energy. Certainly it encourages industry. It has to satisfy the bottom line, and this helps them to cut down on that high cost of energy.

On the other hand, there are instances in which price alone just doesn't work. For instance, low income and elderly in the country, including many in Illinois, will face severe hardships in many cases if the price of natural gas rises. Some say it is going to go up by as much as 30 percent in Illinois this winter.

What do you feel can be done to help people who are in that tremendously large number of people—such as low-income people and elderly people who don't have the capital, for instance, to make the investment in energy saving measures? What can be done to help them, and do you agree that it does make sense to help them weatherize their homes rather than depending year after year on welfare grants to pay ever-increasing costs of energy?

Mr. **Thomas**. Of course, we are going to have to give the poorer and the underprivileged support when it comes to supplying the necessary energy to heat their homes and the like. I feel that the money that is set aside for that, in part, can be used for weatherization and the like which will reduce the amount of energy required to maintain the same heating level in their homes, and this, of course, is one of the things that is being advocated by the Alliance today.

I would like to make a gratuitous statement as it relates to energy conservation and as it relates to business. One of the problems that business has—let me retreat and say just for a moment that in Washington, sometimes I don't feel that it is recognized that wealth is created not in Washington, but through productivity in the marketplace and through services and goods.

There is always pressure on business to spend the few capital dollars that we have, and we do have a shortage in those, Senator Cohen, the few capital dollars that we have on things that will improve productivity and improve the quantity and quality of production. So as a result, conservation often has taken kind of a back seat in business, and we do need, both the Alliance and the government, to continue to point out to businesses that it should give conservation the high priority that it deserves along with the priority of increasing the quality and quantity of production.

Senator **Percy**. There is one other area which doesn't seem to hold the incentive for individuals and, say, corporations: the public buildings where you just add the increased cost of energy into your budget requests at every level—municipal, State, and local.

The Department of Defense doesn't have a price incentive. It has to come from someplace else. We have had the Comptroller General audit some of the things that have been done in conservation, and they have strongly supported programs such as weatherization, appliance labeling, and residential conservation programs. This is a tough bunch of people in the Comptroller General's office. I wonder if it would be wise to bring them in to make a study as to what is being done in those areas, by the government, beginning right in the Department of Energy and then in other places in government, where there isn't a price incentive and just focusing attention in those areas on what can be further done to get a payback for conservation.

Would you feel that it might be worth having them make such a study, to analyze what is the potential savings that can be made where price is not a factor and let price be a market regulator wherever it is a regulator?

Mr. **Thomas**. Linda is asking me to comment at the Alliance tomorrow in a meeting on some future directions for the Alliance. I think that the Alliance and government should enter into a partnership to determine ways and means of using passive solar to a greater degree to reduce energy costs. I think this has been demonstrated in the prior testimony this morning that we are not allocating to R&D at the Federal level the amount of money that, really, we should.

I think this is one area that should receive attention. I would hope that we would give the right kind of attention to this problem.

I agree with you that it is a probelm and this is something where I think we could make considerable progress if we set our heads and minds to do it.

Senator **Percy**. Thank you.

Linda Gallagher, over the past year, I have asked Secretary Edwards and Assistant Secretary Tribble to actually implement and fulfill an earlier commitment that was made to develop a new innovative market-oriented set of energy conservation policies. I regretfully must report, again today, that I have not seen such a program developed. I can't understand why. It seems to be a task well worth doing. I know you have thought a lot about it at the Alliance.

What suggestions do you have for new market-oriented approaches for conservation that the Energy Department should develop?

Ms. **Gallagher**. I would like to start by bringing up a rather unpleasant subject, but natural gas decontrol would be at the top of that list. In addition to that, we think that this emerging energy efficiency industry needs to be nurtured and developed and that the Department of Emergy could play a major role in this development.

Certainly, beyond that, the major barrier to investing in energy efficiency is the lack of capital. We have been doing quite a bit of work on innovative financing for energy conservation, including limited partnerships; bringing in third party capital; and share the savings plans. There are a wealth of concepts which we are both developing and also demonstrating, including potentially tapping new sources of capital such as pension funds, the portfolio capital of foundations, developing municipal bond offerings for the nonprofit sector and the public sectors—just a wealth of new financing schemes which have never been attempted before which need developing and demonstrating.

Also, the utility industry should be viewed as a major deliverer of energy conservation. We have a major project underway with Arkansas Power and Light. That project has identified 350 megawatts of conservation energy through exhaustive market penetration studies, on site audits, et cetera. Arkansas Power and Light is now in the process of developing a conservation incentive program to tap this energy. It is mostly in the commercial and industrial sectors. If this is tapped and developed, it represents an amount of energy equal to half a new coal generating powerplant. For every year that the construction of that plant is deferred in Arkansas, it saves the customers of the power system tremendous amounts of money.

So we think that innovative concepts like this could be picked up, could be developed, could be pushed across the country.

You asked about the low income sector. The Alliance has also developed a furnace retrofit program which leverages HHS's low income energy assistance program [LIEAP] funds. We have gone to the State level with some money from the Ford Foundation and made them aware that they can take advantage of the conservation dollars available in LIEAP. We then give the oil dealers in the area training on how to do the retrofits. These retrofits can save up to 20 percent on the average of a homeowner's annual fuel bill.

We think more programs of this sort are needed, and especially to accompany gas decontrol. They will be essential to help low-income people adjust to rapidly rising natural gas prices if decontrol is pursued.

Senator PERCY. Mr. Thomas, just in general, would you feel there is considerable potential that it would be possible to achieve some of these ideas?

Mr. THOMAS. I think they are certainly worth pursuing.

Senator COHEN. I would like to make one point. A local gas company, for example, is going to still provide a discount on large purchases, and it seems to me that is going just the opposite direction. They shouldn't be giving discounts to volume purchases, but, rather, the other way around.

Ms. GALLAGHER. I would agree.

Senator PERCY. I want to thank you very much again. I want to pay tribute to the Advertising Council for the tremendous job it has done in supporting the work of the Alliance to Save Energy. It has been one of the major programs for a number of years. What is the total amount of radio and television time donated by the Advertising Council and member radio and television stations to date? Gregory Peck has been the star performer for some time.

Ms. GALLAGHER. Yes. I might add that the Alliance now has the only public service advertising or information that is actually promoting energy conservation. It has been very successful for us, but it is not enough. We have gotten about $115 million in free media time in States for about a $300,000 investment on the media.

Senator PERCY. That is not a bad return on investment, $115 million on a $300,000 investment. I think that is the kind of investment that the Government has an opportunity to make, and we are not seeing that either through the price mechanism or encouragement.

Mr. THOMAS. One last plug: Without the Alliance, I think we would have a real vacuum in this area.

Senator PERCY. Thank you very much.

[Ms. Gallagher's prepared statement follows:]

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Testimony Presented by

Linda Parke Gallagher

Executive Director, Alliance To Save Energy

before

The Senate Governmental Affairs Committee

Amendment to the Federal

Energy Reorganization Act (S. 2562)

September 15, 1982

The Need for Federal Energy Conservation Programs

I am Linda Parke Gallagher, the Executive Director of the Alliance to Save Energy, which has advocated the need for a strong energy conservation program since its founding in 1977.

I am accompanying Mr. Pen Thomas today who has been on the Board of Directors and the Executive Committee of the Alliance to Save Energy since 1979. Mr. Thomas is also the author of the monograph, "A Program To Reduce Oil Imports," which stresses the need for a balanced energy program, one which includes sufficient recognition of the importance of conservation as an energy source. His background in the energy producing and consuming sectors equips him to speak with particular insight into the role which a balanced energy policy must play in assuring adequacy of supply, in light of ongoing international tensions.

Speaking for a moment from the perspective of the Alliance, I would like to comment on that part of the amendment to S. 2562, the Federal Energy Reorganization Act of 1982, which aims to provide greater balance in the proposed reorganization between nuclear and all other energy sources, including conservation. The three provisions in the amendment which address these concerns are those to: establish a separate Assistant Secretary for Conservation and Renewable Resources; change the title of the new organization to "Department of Energy and

Commerce"; and to specify requirements for the transition of the Department of Energy's (DOE) conservation and renewable function to the new Department.

Broadly, the provisions are necessary to ensure that proper federal government attention is given to energy as an important national concern. Although oil imports have dropped to the 4.7 million barrels per day level for the first 7 months of this year, and supplies and prices remain relatively stable, Alliance members are concerned that this situation could be abruptly altered due to any number of factors in the Middle East, among oil producing nations, or a general upturn in our domestic economy causing energy use to increase.

The public has also recorded continuing strong concerns for the notion of diminishing energy resources, soaring costs, and the need to conserve.

However, the Alliance's annual opinion poll, done by Cambridge Reports, Inc., did show the public's outlook toward natinal energy policy issues moving towards decreased governmental control of energy-related industry. It also reported that the number of people who cite energy as one of the two most important issues facing the country, has decreased by more than 50 percent this last year. Energy was overshadowed by issues concerning the economy, inflation, unemployment and crime.

Reactions to specific conservation programs were also assessed. The public approves of such diverse ideas as increasing the role of the electric utilities in residential energy efficiency improvements, to providing tax incentives for corporations to invest in energy conservation projects. It is ironic that awareness and participation by the public in many of these programs has increased dramatically in the last year (in the case of the 15 percent residential tax credit, public awareness rose from 50 percent to 75 percent in the last year), while the Administration proposes abandoning many of these same programs.

Further support for federal conservation programs comes from a wide range of technical specialists, including the Energy Division of Oak Ridge National Laboratories. A team of researchers, led by Dr. Eric Hirst, has tried to quantify the energy savings that could be directly attributable to DOE's spending on conservation. DOE's Energy Information Administration, in separate reports, states that between 1960-1981, the energy intensity of U.S. economic activity (as measured by gross energy consumption in Btu's divided by GNP in 1972 dollars) declined by 18 percent. About 77 percent of this efficiency improvement occurred between 1976-1981, or an average of 3.1 percent per year. A record for efficiency improvements was set in 1981 of a 4.5 percent decline in Btu/$1.[1]

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[1] U.S. Department of Energy, Energy Information Administration, "Energy Intensity of U.S. Economic Activity," Short Term Energy Outlook, Volume 2, May 1982, p. 90.

Dr. Hirst and his colleagues at Oak Ridge came to the following two broad conclusions concerning this improvement. First, more than half of the energy savings were due to efficiency improvements, and the remainder to slower economic growth. Secondly, federal conservation programs have played an increasingly important role in improving energy efficiency. In Dr. Hirst's view, the positive impact of energy savings are enough to justify a DOE budget of at least a billion dollars a year.[2]

A second report, issued by the Comptroller General this summer noted that many of the DOE conservation programs were designed to produce a gradual influence over time, not have an immediate impact. In a letter which accompanied the report, GAO Director J. Dexter Peach stated: "We recognize that decontrolling energy prices has increased the incentive for private sector efforts to identify and take advantage of conservation opportunities. However, abrupt changes in or discontinuance of Federal progams may preclude the timely realization of some energy conservation opportunities since it is not clear to what extent State, local, and private efforts will fill the void left by a substantially reduced Federal effort. Accordingly, there is a need to monitor progress toward capturing conservation opportunities and to foster or supplement responses to market forces when necessary to assure that progress toward reducing energy use does not falter or cease."[3]

[2] Eric Hirst, Richard Goeltz, John Trimble, Energy Division, Oak Ridge National Laboratory, "Energy Use From 1973 to 1980: The Role of Federal Conservation Programs," unpublished, p. 29.

[3] U.S. General Accounting Office, J. Dexter Peach, Letter to The Honorable Richard L. Ottinger, Chairman, Subcommittee on Energy Conservation and Power, June 22, 1982, p.4.

With this caveat in mind, it is extremely important to note that DOE Energy Analyst Frank Emerson is predicting that, for the first time since 1970, the U.S. in 1982 will show a decline in energy efficiency.[4]

This cannot be permitted to happen. The Alliance supports a well funded conservation effort, which we define as being no lower than the $450 million dollar level appropriated in FY 82. The effort should promote effective private sector responses through:

- Elimination of unnecessary energy regulations and price controls,
- targeting of federal incentives carefully to leverage private sector efforts,
- nurturing the development of an energy efficiency industrial sector in the U.S.,
- working with the utility industry to treat energy conservation as an energy source which will offset the need, to some extent, to build as many new, central station generating plants,
- addressing innovative financing arrangements for efficiency improvements in all sectors (particularly commercial and industrial),
- working with consumers and manufacturers to address technical performance problems with some conservation devices, and
- providing some permanent measure of relief to low and fixed income people coping with rising energy prices through conservation, as well as fuel assistance.

[4] U.S. Department of Energy, Energy Information Administration, "Energy Intensity of U.S. Economic Activity," Short Term Energy Outlook, Volume 2, May 1982.

It is my view that in addition to the changes in organizational structure you are suggesting, the conservation area needs leadership dedicated to realizing energy efficiency's potential as a viable energy source. Without the amendments proposed by Senators Percy and Cohen, there is a danger that energy efficiency will no longer make the kind of impressive gains it has in the past, and will not realize its full potential as a partner in the country's economic recovery, and political stability.

Thank you for the opportunity to submit there views, and I would be glad to answer any questions you may have.

Senator **Percy**. Our next witness is Mr. Joseph A. Tribble, who will testify on behalf of the administration as to how this reorganization will affect the conservation and renewable energy programs which he currently oversees.

Mr. Tribble is no stranger to members of this committee. During his past testimony before us and other Senate committees, I have expressed deep disappointment at the record of the Department of Energy in the conservation and renewables area.

I am hopeful, Mr. Tribble, that you have something new to tell us today, that will be more encouraging to us in this area.

We are pleased to have you before this committee.

TESTIMONY OF JOSEPH A. TRIBBLE, ASSISTANT SECRETARY, CONSERVATION AND RENEWABLE ENERGY, DEPARTMENT OF ENERGY

Mr. **Tribble**. Thank you, Mr. Chairman.

After hearing the testimony here this morning, I feel that I should be coming here to plead for additional funds, but I will try to restrain my inclination to do so. I am pleased to be here today to discuss with you the energy conservation and renewable energy technologies in the connection of your consideration of S. 2562, the Federal Energy Reorganization Act of 1982.

There are many linkages between the work that we are doing in the Department of Energy and the activities of the Department of Commerce.

In my view, placing these related activites in the [illegible]ne organization is a logical step.

Before discussing these linkages, perhaps it would be well to review the actions of the Federal Government during the past few years as they relate to conservation and renewable energy technologies.

Following the oil embargo of 1973 until 1980, the notion was widespread that the United States faced a problem which was quite different from those we had faced in the past. Some thought that our sources of energy were being exhausted. We were becoming more and more dependent upon oil imported from the Middle East.

While the prices charged for this oil were escalating rapidly, most of the prices for domestically produced oil and natural gas were controlled at very low levels. Nevertheless, inexpensive energy, one of the basic building blocks of our economy, was becoming a thing of the past.

Many people felt that this was a problem that the Federal Government could and should resolve, and there were vocal demands for attempts to do so. In response, Congress enacted a legislative program which was designed to force energy conservation and subsidize rapid development of energy from renewable sources.

Since the enactment of this legislation, billions of dollars have been spent on research, development, demonstration, and commercialization activities for the purpose of bringing into more widespread use energy from such sources as solar, geothermal, wind, biomass, ocean thermal, and alcohol fuels. The technology for using these sources of energy has now been advanced to the point where their further development and use can be implemented by the private sector whenever they become economical.

Today the energy situation does not appear as intractable as it appeared when these legislative programs were enacted. Importation of petroleum into the United States is down approximately 50 percent from its previous high. The price for imported petroleum is below its high. The price of domestically produced petroleum has been decontrolled, and the price of domestically produced natural gas has been permitted to rise many-fold over the price at which it was controlled in 1972.

Comparing 1972 to 1980, the energy efficiency of the 10 most energy-intensive industries in the United States has improved by 17.6 percent. This improvement in energy utilization efficiency continued in 1981. Comparing 1975 to 1981, the miles per gallon of fuel for domestically produced automobiles has improved by more than 60 percent. Residential energy consumption per household is down almost 20 percent in 1980 compared to 1972. In every case, the cost of energy has been responsible for the great majority of the improvement.

It is a policy of this administration to continue a conservation strategy which is derived or driven by the economics of letting the free market determine the price and consumption of energy. Beyond this we believe that there is an appropriate role for government in fostering conservation of energy through support of long-term basic research for which the private sector has inadequate incentive but which if done would be in the national interest. We believe this same philosophy should apply to our research in renewable energy technologies.

An important factor in maximizing the benefits of research in conservation and renewable energy technologies is the dissemination of this information to business entities which can apply this knowledge in a way that takes advantage of its commercial potential. The business orientation of the Department of Commerce could be effectively used to accomplish this end.

It is axiomatic that energy conservation measures applied to buildings reduce the cost of utilities. Some businesses which have been founded to install conservation measures accept as payment a part of the utility cost reduction.

This approach should be encouraged. Energy conservation companies could come into widespread use to serve industry and buildings.

The domestic renewable energy industry is young but is growing. Its success will depend somewhat on its ability to export its products. Renewable energy technologies in many instances have applications in the less developed countries of the world that would not be economical where an electrical power grid exists as it does in the United States.

The expertise of the Department of Commerce in international trade could play a vital role in the growth of this industry.

The National Oceanic and Atmospheric Administration works closely with the wind and ocean divisions of the renewable energy program. The results of research done in many of the programs in conservation and renewable energy are disseminated through the National Technical Information Service.

The basic research efforts of the Office of Conservation and Renewable Energy would be continued if the Department of Energy were reorganized into the Department of Commerce. Inasmuch as the objectives of this research is to supply the private sector with as broad a group of energy options as possible, direct association with the Department of Commerce should add effectiveness to the overall program.

Mr. Chairman, this concludes my testimony. I will be pleased to attempt to answer any questions you or other members of the committee may have.

Senator PERCY. Thank you, Mr. Tribble.

Is there anything else you would like to tell the committee about what the Department of Conservation and renewable resources program has been doing over the past 1½ years that would allay any concerns that I and other members of this committee have expressed to you in the past about the lack of real advocacy for conservation at DOE and the apparent inability or unwillingness of the Department to come up, still to this day, after a commitment had been given to this committee, that we look into and develop new free market approaches to conservation?

Mr. TRIBBLE. Let me address this question, first, in this way and then get to more specifics such as you suggest.

If we look at the expenditures that have taken place through the Department of Energy over the last several years, we will find that a very large proportion of the appropriations have gone into building hardware and demonstration projects.

For example, the Bartow facility in California is one example of the success of that program. The DOE invested some $120 million in that program, and I am pleased to say that this solar-thermal technology has been a success.

The equipment is now performing. It has been operated at the 10 megawatts that it was designed for, and some of the utilities in that area have already asked for quotations on larger installations of the same nature.

We feel that we can legitimately now reduce the R&D effort that has been put into that technology.

The same thing is true in many of the other renewable technologies. For example, in the wind program, we have spent a large number of millions of dollars in this program, and it has progressed to the point where the Westinghouse Electric Corporation has, I understand, signed a letter of intent with one of the California utilities for a substantial installation of wind generated electric power.

The photovoltaics industry is another example of the use of Federal funds in its infancy and the photovoltaics industry has come along quite well. As a matter of fact, the 1982 production of photovoltaic cells will substantially exceed that of 1981. Companies are investing hundreds of millions of dollars in facilities to produce photovoltaic arrays, and we feel that under these circumstances it is appropriate for us to concentrate on the research that is desirable to do such things as improve the efficiency of conversion of photovoltaic arrays and help bring into the market more economic means of producing this power.

Senator PERCY. You haven't even answered my question.

I assume there is not an answer to it then.

Mr. TRIBBLE. What is that?

Senator PERCY. I asked for what new programs, new initiatives we had? You have had 1½ years in office. The administration has gone off into so many new areas, pioneered new thoughts, the whole new Federalism concept.

What new has come out in 1½ years in the conservation area? Apparently nothing new has come about in that time.

I will leave the balance of my time to Senator Cohen.

Senator COHEN. The balance of that time you may use to answer the question.

Mr. TRIBBLE. The initial balance of new payments was a mandatory program whereby the Government would provide new standards to building energy performance, and the States would change this to a voluntary program. The research is, in fact, going forward on building energy performance standards at this time, and at the end of fiscal 1982, it will have been done and manuals will be provided to architects, engineers, carpenters and others in simple language whereby the various conservation measures that we are well aware of can be implemented in new construction.

I would suggest that the fact that we have a large inventory of buildings that are inefficient, from an energy standpoint, is not because we didn't know how to build them in the first place, but it was simply a matter of economics.

As long as oil was $1.08 a barrel and gas was 33 cents a million Btu, there wasn't a great deal of incentive to put a lot of insulation in a home.

That has changed now. We now know what to do, and we at DOE are in the process of putting this information in manuals or distribution to the people who we think will be able to use it best and certainly, in the future, build efficient homes.

There are other——

Senator COHEN. What about the problem of capital formation for private individuals?

Mr. TRIBBLE. Yes. In that respect we are working to try to get the Federal agencies that support construction of new homes to give recognition to energy efficiency in those homes.

For example, perhaps let them grant a little bit higher percentage, a lower down payment or participate a little bit more in the financing of homes, if they are energy efficient homes.

We think that if this is done; this will be a step in the right direction.

Senator COHEN. What about weatherization programs, combining the weatherization programs with the audit program under the residential conservation service?

Have you done that?

Mr. TRIBBLE. No, we have not made that combination. As you know, we feel that the weatherization activity should be done not in the Department of Energy but in the departments that do relate to that kind of participation in support for those in lower income brackets, and there is a large sum of money that is available through those programs for weatherization.

Senator COHEN. You are suggesting that if they go to Health and Human Services and the Department of HUD that they will find relief for their weatherization needs?

Mr. TRIBBLE. In the 1982 budget, it is my understanding that the HUD funds for the States was on the order of $3.5 billion.

Senator COHEN. My understanding is that there was an actual reduction in funding in HUD for weatherization.

Mr. TRIBBLE. That could very well be. I was told that the 1983 request was the same as the 1982 funding. But that could be in error.

Senator COHEN. Mr. Tribble, you indicated that further resources in solar, wind, geothermal has proceeded far enough that when it becomes economical to produce, the private sector should handle it.

No. 1, this seems to imply that this is somehow a static field; that once you achieve the basic research and development, there will be no improvements in the state of the art; there will be no need for research and development.

Why are we spending over $1 billion in R&D?

Mr. TRIBBLE. I would say that is not the case.

Senator COHEN. You said further research; you talk about solar, wind, geothermal, among others, has proceeded to the point whereby it becomes economical; the private sector ought to handle it.

Mr. TRIBBLE. Yes.

Senator COHEN. Provided the R&D is sitting on the shelf and when it becomes economical, the private sector will take over.

The question I have is, why don't we say the same thing for the nuclear industry?

Mr. TRIBBLE. I also said we are going forward with further research that the private sector does not have the economic incentive to do.

I would like to give you a few examples of that.

Senator COHEN. All right.

Mr. TRIBBLE. In the photovoltaics section, we have a program at the Solar Research Institute that is doing a great deal of good work in looking at photon conversion with the idea of improving, further improving the efficiency of solar cells, both from silicone and gallium arsenite and other materials that we think have promise in that field.

In the field of biomass, we are going forward with experimentation in photosynthesis so that we can improve the production of biomass per acre so that when this becomes an economical fuel, we will be able to produce it more efficiently.

We are going forward with work at the same institution on microbiology work. There are some bugs that have a high hydrocarbon content.

We are making every effort to learn the basis of that so that we can increase the amount of hydrocarbons that we may be able to get from this.

Certainly, these are long-term projects, and they are ones that we would not expect the private sector to pick up. But we are going forward with the research in these fields, and the point that I wanted to make is that we have converted the programs from the demonstration phase and the investment in large quantities of hardware to this type of research which we think will be very beneficial in the long run.

But we will have to all agree that it doesn't take anything like the amount of money to do this research that it does to build hardware demonstrations.

Senator **COHEN**. Would you agree that the amounts of money that have been proposed by the administration in the fields of conservation and renewable energy resources is rather dramatically low compared to that of the nuclear industry?

Mr. **TRIBBLE**. No question about it.

Senator **COHEN**. Would you give me the rationale as to why we are subsidizing the Clinch River breeder reactor program?

Mr. **TRIBBLE**. No, sir. That is not in my area, and I know very little about it; I am sorry.

Senator **COHEN**. All right. Good enough answer on that.

We have just passed a supplemental appropriations bill, Mr. Tribble, and the bill contains specific staff levels which have to be maintained in the field of conservation renewable areas.

How do you intend to carry that out, that mandate?

Mr. **TRIBBLE**. Let me first say that the 1982 budget level has been successfully carried out with on the order of 400 employees in headquarters in my organization.

If that level of funding in the final analysis comes forth for the 1983 budget, we would still be able to do so, in my judgment, more effectively, because in 1982, we have had to suffer the consequences of having had a substantial RIF in the organization and relocation of a number of people to jobs that they were unfamiliar with.

So that in my judgment, the organization we have will be more effective in 1983, and I am saying all of this to express my opinion that we do not need additional employees in my organization.

However, if, in fact, we must use more people, our management and administration department is now looking in to that to determine what advice they would have for us as to how we should go about implementing that law.

Second, if it is in the law, then we will comply with it.

Senator COHEN. Then you agree with the GAO analysis on the reorganization that was major last year that it caused disruption and mismanagement, in fact, with the management programs?

Mr. TRIBBLE. I believe the report only says there was some discontinuity at the management level.

Senator COHEN. "Loss of continuity in headquarters top management and staff and ability to provide adequate program monitoring due to reduced field staff due to the uncertainty as to the future of DOE programs, there was a continuing high attrition rate and inability to fill vacancies."

It had an impact upon morale?

Mr. TRIBBLE. No question. It did have an adverse impact on morale. On the other hand, you must think that we came down from 662 people to about 415, and you would expect some discontinuity in the management by virtue of the fact that we had to make the changes that we did.

Senator COHEN. Do you plan any more internal reorganizations?

Mr. TRIBBLE. No, we do not. Well, on reorganizations, of course, there is a constant look at the organizational structure, and we will simply have to wait and see what kind of level of expenditure we will need or have in 1983 before we can give further consideration to that.

Senator COHEN. One final question, Mr. Chairman.

I understand that your budget request for 1984 has been sent to OMB. It is broken down by technological categories rather than by end use, as you have done in the past.

The question I have is are you planning to have some sort of internal reorganization to take place for 1984?

Mr. TRIBBLE. I think the same thing that I just mentioned applies. These categories are the same as those categories that were submitted in the 1983 budget.

In 1984, the budget is submitted on the same basis as the 1983 budget.

Senator COHEN. Just one final point.

Have you read the book, "Brittle Power," by the Lovins?

Mr. TRIBBLE. No, I am sorry, I have not.

Senator COHEN. Let me say both doctors testified, a husband and wife team, Amory and Hunter Lovins, who came before this committee during the past year and talked about "brittle power," in essence, saying that we are heading in the wrong direction; by concentrating on efforts that those types of centralized energy producing systems we thereby open ourselves up to a future assault, sabotage, terrorists, a handful of people who could bring this country to its knees almost overnight by failing to promote more decentralized types of energy systems.

I think it is an important work. You may not agree with everything that is contained in it. It may be overly cynical and pessimistic about the future vulnerability of our systems, but I would commend it to your attention.

Thank you, very much, Mr. Chairman.

Senator PERCY. Thank you, very much, Senator.

Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

Mr. Tribble, can you tell us how many full-time employees you now have in your office?

Mr. TRIBBLE. At last count, I believe it was 407 in headquarters and something in excess of 100 in the field.

I am sorry; I don't have the exact number.

Senator LEVIN. Do you know how many are in the Office of the Assistant Secretary for Fossil Energy, in that division?

Mr. TRIBBLE. No, I am sorry. I don't.

Senator LEVIN. Has there been any discussion as to whether or not your office and the other offices are going to be complying with the supplemental?

Mr. TRIBBLE. Certainly, there has been discussion of it. As I mentioned a moment ago, the management administration group are studying the law and looking at the numbers to determine what we will need to do, and we are looking to them for guidance and recommendations.

Senator LEVIN. Is it your intention and the intention of the Department of Energy to carry out the requirements of the supplemental appropriation in that respect?

Mr. TRIBBLE. Certainly, if it is in the law, we will follow it.

Senator LEVIN. We had another law which required you to spend $3.5 million for the residential conservation service program.

A portion of that has not been spent, $1.7 million. A letter was sent to you by the majority leader and by Senator Hatfield, relative to that back in July saying "Why hasn't that money been spent?"

The monitoring and evaluation of the residential service program, is in the law, but your answer to them of August 25 did not indicate whether or not you intend to spend that money.

Do you?

Mr. TRIBBLE. Yes, but let me first address that question.

The new regulations, I believe, went in the Federal Register in June of this year. The utilities and the States have been operating under the old regulations. They, under the new regulations, have the opportunity to change to a more flexible arrangement.

We feel that an evaluation at this time would not give us the answers that are truly representative of the effectiveness of the RCS program under the new regulations, and we feel that it is more appropriate to give the States and utilities an opportunity to operate for a while under the new regulations and then have an evaluation.

We think then we will have a truer representation of that.

Senator LEVIN. Do you intend to carry out that program by the end of this fiscal year?

Mr. TRIBBLE. We would not intend—to my understanding, this is no-year money, and that we would not intend to spend that full amount in the fiscal year.

Senator LEVIN. Are you going to seek a rescission?

Mr. TRIBBLE. We have no plans to do so.

Senator LEVIN. If you know you aren't going to carry out the program, shouldn't you be seeking a rescission?

Mr. TRIBBLE. In many instances, we have no-year dollars that go from one year to another without a rescission.

Senator LEVIN. When, then, do you seek a rescission?

Obviously, if you have dollars left at the end of the year where you intended to carry out the program, that is one thing, but here you do not intend to carry out the program.

I wonder if under the Impoundment Act you should not be seeking a rescission?

Mr. **Tribble**. The advice I have been given thus far would not lead me to that conclusion, but I certainly will ask that question again to be sure that we are not doing things that we shouldn't be.

Senator **Levin**. All right.

If you could inform the committee on that issue, I know there are a number of members interested in that issue.

Mr. **Tribble**. I would be glad to.

[The information referred to follows:]

Upon making further inquiry into this question, I am again advised that a rescission is not needed because we do intend to conduct the evaluations at a later date. As I stated, the delay was incurred because the revised regulations were published in June of this year.

Senator **Levin**. I cannot speak for the chairman, but I know a number of us would appreciate Mr. Tribble informing us on whether he is going to seek a rescission, and if he is not, why not, and his statutory authority to not carry out the program.

The law also requires that the Department of Energy, as soon as practicable, after the end of the fiscal year, file an annual report that contains certain data.

There was recently an article in the publication, Inside Energy relative to this which points out that the annual report does not contain sections on projected energy needs of the United States, including the commercial-industrial sector; estimates of domestic and foreign energy supply needed to meet those needs; quantities of energy to be provided from various sources of energy; forecasted trends and prices using management of energy supplies.

We have also looked through this annual report, and that is our reaction, too; that the law has not been complied with here, either.

The law is very clear in section 657 that the annual report contain the items that I have just enumerated.

Are you familiar with this annual report?

Mr. **Tribble**. I am familiar with the portion that comes from my organization that goes into that, but I don't believe that any of those items that you enumerated are items that should be supplied to the report from our group.

Senator **Levin**. Are you familiar enough with the report to know whether or not the report contains the items I have enumerated?

Mr. **Tribble**. I am sorry to say I do not.

Senator **Levin**. Mr. Chairman, if it is appropriate, could we ask the Department of Energy why is the report—which this committee, by the way, was instrumental in establishing because the annual report requirement came out of this committee of the Congress—does not contain the specific matters that I enumerated, matters that which this committee wrote into the law.

We have got a Department of Energy here that seeks changes in the law. I have got real questions in my mind as to whether this department complies with existing law.

Senator **Percy**. I think it is an appropriate question. We can ask them for a response from the administration on this.

Senator **Levin**. I certainly ask that.

[The information referred to follows:]

As indicated on page 3 of the Secretary's Annual Report to Congress (August, 1982), projections regarding energy requirements and energy sources are provided in the National Energy Policy Plan (NEPP). These projections are contained in the companion volume to the NEPP, entitled *Energy Projection to the Year 2000—July 1982 Update*. This volume has been provided to the Committee. [The volume referred to has been retained in the committee files.]

Senator **Levin**. I might have an additional question for the record.

Senator **Percy**. All right.

We will keep the record open for those and further answers.

I have one last question for Mr. Tribble. While you were in the room, our previous witness, Linda Gallagher, gave suggestions for new conservation initiatives.

Could you comment as to whether you are favorably impressed by these? Do you feel that they are the kinds of things that can be picked up and implemented and what role will you play in trying to implement some of those ideas?

Mr. **Tribble**. Mr. Chairman, we would be pleased to have those recommendations and certainly would take a very good look at them.

I might say, at the same time, that we asked the Energy Research Advisory Board to constitute a panel on conservation, and they have done so and have been at work throughout this, the last few months.

We expect to get a report from them very shortly. I think there is going to be a meeting on September 24 in which the discussion of their recommendations will take place, and we pointed out to them that we would like to have specific recommendations for things that we might do to enhance energy conservation in the United States, and we are looking forward to that report.

Senator **Percy**. Again, I haven't heard an answer to my question. It sounds like the answer a politician would give, if the question was, "Where do you stand on abortion?" the day before an election.

I asked the question, how do you respond to the suggestions that have been made from your background and knowledge of conservation?

Did you find some of these acceptable?

Mr. **Tribble**. Yes.

Senator **Percy**. All you have said to me is that you would look at them. That is not a response.

Mr. **Tribble**. I cannot give you a specific response on each and every one of them. I certainly would be glad to do that at another time.

Senator **Percy**. Is there any that you could name that you would be favorable to?

Mr. **Tribble**. If you would recall them to me, I would be glad to give you a response.

Senator **Percy**. I will ask that you look at the record, then, and respond in writing to them at this point in the record, and we will keep the record open for that purpose, to each one of them.

Mr. **Tribble**. Sure.

[The information referred to above and responses to written questions submitted by Senator Levin follow:]

Earlier in this hearing, Ms. Linda Gallagher, Executive Director of the Alliance to Save Energy, suggested several ways in which the Federal Government should promote effective private sector response. We heartily agree with (1) the elimination of unnecessary energy regulations and price controls, (2) the targeting of Federal incentives and research to leverage private sector efforts, (3) the nurturing of the development of industrial energy efficiency. With respect to industrial energy efficiency, there is adequate incentive for industry to take cost effective conservation measures. We have been told many times that one of the most effective ways by which the Federal Government can assist in improving energy efficiency would be to further reduce the burden of Federal regulation. Virtually the entire utility industry is promoting energy conservation. One way in which the Federal Government can enhance this effort is to conduct conservation research for which the private sector has inadequate incentive to do, but which, if done, would be in the national interest. As this research produces usable results, we should work with the utilities to disseminate the information and promote its use. We also endorse innovative financing arrangements which recognize the value of energy efficiency buildings.

We are interested in working with consumers and manufacturers in order to structure our research programs to address areas that are economical beyond the scope of the private sector. We must be careful, however, to avoid Federal support of research which industry may be conducting on a proprietary basis.

We are sensitive to the impact of rising energy prices on low and fixed income people. However, we feel that assistance is more properly the responsibility of the agencies of the Federal Government which normally deal with assistance programs.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY SENATOR LEVIN

Question 1. How many full-time employees are now on the payroll in the following offices within the Department of Energy: Office of the Assistance Secretary for Conservation and Renewables? Office of the Assistant Secretary for Fossil Energy? Economic Regulatory Administration? Energy Information Administration? Are these all in compliance with the minimum levels set for those four offices established in the FY 1982 Supplemental that apply until changed by statute? If not, how does the DOE proposed to get staffing up to the statutorily mandated levels as quickly as possible?

Answer. Full-time, on-board staff levels as of 10/02/82 for the offices of CE, FE, ERA and EIA are shown below. As the chart shows, ERA and FE are above their floors, although FE is below the floors stipulated for Headquarters and the Morgantown Energy Technology Center. EIA and CE are currently below their floors. The Department is expediting the administrative processes necessary to meet all personnel levels as set forth in the Supplemental.

Organization	Floor	On board total
Energy Information Administration	490	483
Economic Regulatory Administration	450	453
(Office of Fuels Conversion)	(40)	(45)
Fossil Energy	754	919
(Headquarters)	(150)	(133)
(Pittsburgh ETC)	(280)	(314)
(Morgantown ETC)	(250)	(181)
(BETC, GFETC, LETC)		(291)
(Unspecified)	(74)	(—)
Conservation and Renewable Energy	352	[1] 326
(Conservation)	(154)	(142)
(State and Local Grants)	(180)	(166)
(Other)	(18)	(18)

[1] Excludes personnel funded from the energy and water development appropriation.

Question 2. At the hearing last month, we discussed a July letter sent to you by Senators Baker and Hatfield concerning the unspent portion of the Residential Conservation Service. You indicated that you have no intention of spending the $1.7 million appropriated for monitoring and evaluation of the RCS program, which is a full 50 percent of the RCS budget. The brief response sent to the Government Affairs Committee states that a rescission is not needed. What is the basis for refusing to request a rescission or deferral? What legal options are available to you except for the two alternatives just mentioned?

Answer. The full implementation of the Residential Conservation Service (RCS) and related programs has been given a high priority by the Department. Issuance of the revised final RCS regulations and the planned proposal, in the immediate future, of two other related rulemakings are evidence of this committment. Further, during fiscal year 1982, the Department obligated about $5 million of the total available funds designated for this area—about $0.5 million of which has been directed toward monitoring and evaluation activities. At the end of fiscal year 1982, there remained approximately $1.5 million of the funds originally designated for the RCS. These are no-year funds and thus remain available to the Department for use in support of the RCS and related programs.

We have undertaken the administrative requirements necessary to ensure that the funds for these programs will be used in the most effective and efficient manner possible. For example, we are currently determining whether sole source procurement is necessary or whether these functions can best be completed in-house or outside the Government. Any savings that may accrue from completion of these administrative assessments will, if not needed elsewhere in the RCS program, be subject to either deferral, rescission or reprogramming action by the Department.

Question 3. On page two of your statement, you assert that, "The technololgy focusing these sources of energy has been advanced to the point where their further development and use can now be implemented by the private sector whenever they become economic." Please provide for the Committee examples, within each area of your program (building systems, urban waste, energy process efficiency, etc.), of both R&D programs that you have terminated that have been picked up by the private sector and programs that are not continuing on private funding.

Answer. Examples of research picked up by the private sector after termination or reduction by the Federal Government include the following:

Under DOE sponsorship, the air cathode has been developed for industrial application in the electrochemical area. Diamond Shamrock has worked with Case Western Reserve in fabricating improved cathodes for chlor-alkali cells to produce chlorine. The improvements have resulted in gross energy savings of about 25 percent, or 600 kWh per ton of chlorine. Diamond Shamrock has decided to continue this project with company funding because of these promising results.

The development of the hydrogen anode for zinc "winning" (electrolytic refinding) has been taken over by New Jersey Zinc (now part of Exxon).

The initial development of sodium chloraluminate sulfur systems show significant promise in terms of high voltage output per cell and high energy density. The potential use is already evident in space vehicle applications where cost is not the primary consideration. Bell Laboratories, has, therefore continued the research independent of Government funding.

EPRI will be operating the Compressed Air Energy Storage Field in Pittsfield, Illinois, a project funded initially by DOE. This experiment, which will use compressed air in an aquifer, was dedicated in October, 1982.

Corning Glass plans to use DOE-sponsored research on composite flywheels to develop them for commercial applications. Beckman Instrument Company will use the technology to complete with German manufacturers in the centrifuge market.

Carrier will continue hardware development of ice storage for air-conditioning under their own funding.

The private sector is funding about half the costs of the research remaining to be done on a gas-insulated transformer. The next phase, which will be prototype development, will be funded entirely by the private sector.

Motorola and Shell Oil have announced the formation of a joint venture, Solarvolt International, for the development and manufacture of photovoltaic arrays and products.

EPRI and the American Wind Energy Association are continuing development of wind turbine siting methodologies initially developed by DOE. Wind turbine siting prospecting services are being provided by several small companies and consultants.

Since we do not monitor private sector activities closely, we are unable to provide specifics on programs terminated but not picked up by the private sector. We would assume that there would be some, however, as not all of the technologies involved are economic in today's environment. As economic conditions and the energy marketplace change, technologies supported by the private sector also will change. As a result, technologies not picked up by private industry may be pursued in the future if conditions warrant.

Senator **Percy**. Thank you very much.

It is always a tough role to be the last witnesses of a long morning. I would very much appreciate your summarizing your statements. Scott Sklar is the Political Director of the Solar Lobby, he is the coauthor of the recently published book "The Forbidden Fuel: Power Alcohol in the 20th Century."

Our second panelist, David Moulton, is representing the Conservation Coalition, a nonprofit, nonpartisan alliance of public interest organizations formed to promote and publicize energy conservation. I look forward to both of your remarks on how the proposed reorganization can be changed to best promote conservation and the development of solar and other renewable energy sources.

I would like to say, having just returned from Cyprus, I was absolutely amazed in the Greek sector to see virtually every building there constructed having solar on the top of the building at a minimum to keep the hot water. The hotel we stayed at said they are a little behind. They are going to put it in next year, but it was just an amazing thing. I have not seen another country, except Israel, that was so completely dedicated to solar energy.

I certainly think progress is being made, though not enough, at all, in this country. Mr. Sklar, would you start off and followup with Mr. Moulton.

TESTIMONY OF SCOTT SKLAR, POLITICAL DIRECTOR, SOLAR LOBBY, WASHINGTON, D.C.; AND DAVID MOULTON, POLICY DIRECTOR, ENERGY CONSERVATION COALITION, WASHINGTON, D.C.

Mr. **Sklar**. I would like to just submit my testimony and just make three comments.

Senator **Percy**. Your full testimony will be put in the record.

Mr. **Sklar**. We are opposed to the bill for three reasons. One is the fact that there are two nuclear-related Assistant Secretaries proposed for the Department of Commerce and one for all others. As you know, and as you have been painfully aware, that the nuclear energy and conservation programs have been the stepchild of the DOE. Now we feel they will be a stepchild of a stepchild.

Second, the alcohol fuels program that was in the Department of Energy that was proposed not to be moved to the Department of Commerce but to the Department of Agriculture. As you are also aware, the Department of Agriculture has not been overly enthused about the potential of alcohol fuels, even though corn prices are going down and down and so are farmers. The Solar Lobby believes that would be very, very unwise to have the only liquid synthetic fuel now in the marketplace out of the auspices of any energy department.

Third, just the whole proposed Department of Commerce management system, we are afraid, might become another HEW; many, many departments that are not coordinated. And energy, being essential, as Secretary Schlesinger just said, this merger does not really provide for the long-term resolution of a national policy in regard to energy.

I serve in another capacity, as treasurer of an organization called the U.S. Export Council for Renewable Energy, which is a group of

10 renewable energy organizations and associations and we have formed it because the solar industry in this country is in a real fix. In fact, what Mr. Tribble said, that research out of the Department of Energy will be picked up by the private sector when energy prices are stabilized, show that we are getting mixed signals on economic policy from the White House, both in the funding of research and in their request for repeal to the business energy tax credits. This has caused the climate for the domestic renewable energy industry, which is a $4 billion industry, to be put on hold; and a lot of these nice technologies that taxpayers have invested millions and millions of dollars could not possibly be put in the marketplace because of the mixed signals from the administration.

Therefore, our only recourse is to try and go into the export market, and we are beginning to do this. But we are painfully aware that the industry may be hurt and set back if we don't start really saying, "We have a strong renewable policy both in the Department of Energy and for in tax legislation."

Last, I am wearing a button on my lapel from the municipal solar energy in Carbondale, Ill. They are doing great work, and the public has been in strong support of conservation and self help renewable energy activities. It would be a shame if the Federal Government is again out of touch with the citizenry on the potentials that renewable energy can do for the balance of payments and employment.

Thank you for your support on these issues.

Senator PERCY. Thank you very much for that very strong and concise statement. We appreciate it very much, indeed.

Mr. Moulton?

Mr. MOULTON. Thank you very much, Mr. Percy. It is a privilege for me as an advocate of any conservation to appear before you. Your work has been one of the strongest and most persistent and conscientious in the Senate or the House on conservation.

I just want to take the brief time that I have here this afternoon to try to dispel the gloom and doom that I think Congress feels pervades its efforts to try to get something done over at the Department of Energy. I think you want to get new ideas out of the Department, but your persistence has borne no specific fruit up until now.

On the other hand, your continual pressure and pressure of others in Congress has managed to keep important programs going. The weatherization program is in place; it is helping people. Research is in place, it is helping people. And I just hope that these firefights that we have over things like reorganization and RIF's and downgrades that so demoralize people don't, in the end, make them feel that it is no longer useful to continue to pressure the administration to be constructive in this area. I just would encourage you to continue to keep the pressure on them, because we actually see good things happening over there, despite the lack of leadership that is so obvious to everyone.

With respect to your amendments, I strongly endorse the motivations that have led to them. We feel absolutely that this imbalance reflected in the assistant secretaries has to be corrected. We don't want that, however, to be termed as endorsement of the overall effort to reorganize the DOE, because as we say in our statement, there is no question that further reorganization would further cripple and demoralize the staff and weaken the programs. We oppose reorganization very strongly.

I thank you.

Senator **Percy**. Thank you very much, indeed.

Mr. Sklar, fuel ethanol continues to gain popularity in the country as an octane enhancer. My own State of Illinois has emerged as the leading producer. We now face the prospects of an enormous corn surplus with no place to put it. My bill is to turn as much of this surplus as we can into fuel alcohol. I recently introduced a bill to do that and to use this fuel in the Federal automobile system. Later today I will testify in the House on this legislation. Would you comment on this?

Mr. **Sklar**. Obviously it is a great idea. What we need are incentives to just build up the market. What many of the people in the Department of Agriculture and this administration, have always said is that, "Just let market forces prevail." What we are saying is that we should have an infrastructure all ready that would get this fuel to be utilized and we can develop broad consumer and institutional acceptance, and your plan does that.

Also the strategic alcohol fuel reserve is a key to the approach.

Senator **Percy**. I presume, Mr. Moulton, you concur with that?

Mr. **Moulton**. Yes.

Senator **Percy**. I thank you very much. I have no further questions. There may be questions submitted for the record. We would appreciate your response to those. We will keep the record open for that purpose.

[The prepared statements of Mr. Sklar, with attachment, and Mr. Moulton follow:]

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TESTIMONY OF

Scott Sklar
Political Director
Solar Lobby

before

U.S. SENATE GOVERNMENTAL AFFAIRS
CONCERNING ENERGY REORGANIZATION ACT
(S. 2562)

September 15, 1982

Thank you for this opportunity to testify in opposition to the "Federal Energy Reorganization Act of 1982." The Solar Lobby is opposed to this bill for several reasons.

First, the proposed Department of Energy dismantlement and reorganization plan would de-emphasize our need for a balanced and coherent national energy plan. The U.S. Department of Energy was created in 1977 to aid in the formulation of a balanced and coherent energy policy, and it is essential for us to keep in mind the fact that conditions since then have not substantially changed. Although the current climate has been mild and energy prices have stabilized in the short term, the crisis remains -- our energy problems have not solved themselves. We are still as vulnerable to supply disruptions and shortages as we were when the "crisis" was most evident. Furthermore, a crisis of even greater proportions is inevitable, and the mechanisms best equipped to deal with it must be kept in place. Dispersing the functions of the DOE among five separate departments will only lead to a disjointed, incohesive national energy policy in an area where coherence is imperative.

Secondly, this bill will undermine the role conservation and renewable resources can play as a major component of our national plan. One aspect of the effort aimed at reducing our dependence upon foreign oil was a wide-spread conservation program, along with the technical development and application of renewable resources. These, we believe, have made -- and can continue making -- major strides toward the goal of energy independence. However, the proposed DOE dismantlement and reorganization de-emphasizes the role these programs can play in reducing our energy supply problems. Approval of this plan, as Senator Charles Percy states, "would be to endorse an energy policy which has an excessive tilt toward the development of nuclear energy at the expense of other resources, such as coal, renewables, and conservation."

And finally, we are in opposition to an incorporation of DOE in the Department of Commerce, because it presumes a reliance solely upon a free market approach to meet energy needs and allocate energy resources. This is an admirable concept -- one which we would be quite willing to support. Reliance upon market decisions would, indeed, reflect the true cost of energy, enabling consumers to choose the most cost-effective means of meeting their own energy needs. However, such a plan could not possibly be successful unless Congress is willing to establish a truly free energy market.

In such a market, competing energy sources have to start on an equal basis. Subsidizing one source, and not another, would distort the true market value of that source; no longer could the competition be considered equitable. Thus, if it is found necessary to make drastic cuts in conservation and renewable resource programs, those same cuts should be made in all programs. Increasing spending for nuclear programs by 36 percent, maintaining synthetic fuel subsidies, and granting $12 billion of tax benefits to the oil companies -- all of which occurred in 1981 -- is certainly not an effective way of creating a truly free energy market. Nor will this type of hypocritical policy fulfill the second "energy responsibility" of the Administration by "integrating the development of energy policy with the Government's overall economic policymaking process..." as stated in Title I, sec. 101, Par. 3, (B) of the bill.

Additionally, the Solar Lobby has several specific problems in the bill itself which warrents our opposition.

First, we feel that in the proposed reorganization plan, nuclear energy is emphasized to an unreasonable degree, while renewable energy programs are given wholly inadequate visibility. Present DOE setup includes one Assistant Secretary who is responsible for renewable energy and conservation programs, and is afforded direct cabinet-level access through the Secretary of Energy. The proposed reorganization plan provides for no comparable status. It does, however, make provisions for two Assistant Secretaries, whose functions are primarily nuclear-related, and one Assistant Secretary assigned to all other sources. (This includes not only conservation and solar, but coal, oil, and gas as well.) This one-sided approach is not only impractical, but dangerous. We feel that a more balanced energy policy, where all energy sources are given equal emphasis, would be far more practical, and more beneficial to the nation in the long run.

Secondly, in the proposed reorganization plan, the alcohol fuels program, (representing the only synthetic liquid fuel currently in the market-place) will be separated from all other energy sources, and transferred from the Department of Commerce to the United States Department of Agriculture. This move, we feel, is not only inconsistent with the goal of formulating coherent energy policy, but will slow progress in this area to a large extent because of the lack of interest by the Department of Agriculture.

And finally, the Solar Lobby believes that the proposed reorganization plan would create a larger bureaucracy, comparable to that of the Department of Health and Human Services, where seven Deputy Secretaries report to the Director. Not only is this a bad management approach, but in such a situation, energy policy, and in particular, renewable energy programs, will experience serious setbacks. In addition, such a merger would cost U.S. taxpayers more money then if these agencies are maintained in their present form.

In conclusion, the U.S. still is in need of an articulated national energy plan and commitment. The U.S. Department of Energy is the focal point of this commitment. Moving energy programs to the Department of Commerce -- particularly renewable energy and energy conservation program will result in an uncoordinated and poorly managed energy program.

THE RENEWABLE ENERGY ALTERNATIVE
AS CRITICAL AS EVER

a program to continue development of promising renewable energy technologies

JUNE 1982

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Introduction

From the mid-1970's until the beginning of the current Administration, Federal support for renewable energy took a variety of complementary forms. Authorized through a series of laws, renewable energy programs were directed toward estimating the potential for renewable energy applications, pursuing research on promising technologies, enhancing the manufacturing and marketing capability of the renewable energy industry, and bringing down the costs of systems to consumers.

This effort is beginning to bear fruit. The leading edge of renewable energy technology is succeeding in the marketplace, and even more promising applications are being developed. The Federal solar program has broadened and enhanced the total contribution that renewable energy can make to the United States' energy mix.

Since January of 1981, however, the scope of the Federal renewable energy program has been reduced. The Administration proposes to support only long-range, high-risk research activities. Commercialization efforts, consumer information programs, economic incentive programs, and technology demonstrations would all be abandoned on the grounds that the energy marketplace alone should govern the development of renewable energy. Unfortunately, the Administration overlooks the imperfections of the energy marketplace. In fact, by increasing support for competing energy industries, the Administration is further distorting the market against renewable energy.

Renewable energy supporters recognize the need for fiscal austerity, and have been willing to accept reductions in the Federal renewable energy development program. Yet we are convinced that the budget reductions imposed on renewable energy (53 percent in 1982; an additional 75 percent proposed for 1983) are excessive. They would abort the ongoing development of more cost-effective and productive renewable energy systems. The private sector simply cannot compensate for the abrupt removal of $500 million in development support.

"The Renewable Energy Alternative" outlines in detail a program to continue work on the most promising renewable energy technologies. It offers the collective advice of the leading industry and consumer elements of the renewable energy sector. It is not our ideal; it is an austere program, respectful of fiscal discipline. But we feel it is a necessary budget, to keep the United States in the forefront of renewable energy.

This budget, in its aggregate, is equal to the 1982 funding level. This in itself means a real reduction in program activities. We feel, as do substantial elements of the Senate and the House of Representatives, that reductions beyond those imposed in 1982 would seriously impair the nation's ongoing effort in renewable energy development.

DOE RENEWABLE ENERGY R&D PROGRAM
(budget authority in millions of dollars)

	1981 Appropriation	1982 Appropriation	1983 Admin. Request	1983 R.E. Alternative
Active Solar Heating and Cooling	43.7	11.5	0	14.0
Passive and Hybrid Solar Heating and Cooling	33.4	10.6	0	14.0
Photovoltaic Energy Systems	160.2	75.0	27.6	54.0
Solar Thermal Energy Systems	141.8	54.9	18.4	59.5
Biomass Energy Systems	46.5	20.5	6.75	24.0
Alcohol Fuels	20.8	10.0	3.0	10.0
Wind Energy Conversion Systems	85.8	34.4	5.6	44.4
Ocean Energy Systems	39.0	20.8	0	20.8
Renewable Energy Information	1.4	6.7	0	5.0
Renewable Energy International	12.0	4.0	9.5	11.5
Program Support	—	3.5	—	4.0
Solar Reserve Account	—	12.3	—	3.0
Program Direction (Administration)	6.8	4.0	2.146	4.0
Total DOE Renewable Energy R&D	591.4	268.2*	72.99	268.2

* — Takes into account $7.2 million reduction, part of $61 million assessed to Energy Supply R&D.

Active Solar Heating and Cooling

Active solar technologies are probably the most widely recognized solar applications. Flat plate collector systems for water heating have achieved substantial market acceptance in certain parts of the country. The Federal government has successfully accelerated the development of the active solar industry through its support for research and development, and through its various demonstration programs, which have resulted in the purchase of large numbers of systems.

Broader acceptance of active solar technologies will depend on a reduction in system costs, and on a fuller understanding of their economic viability in the context of integrated applications with passive solar techniques and more efficient conventional heating and cooling systems. In addition, consumer confidence in active solar will continue to rely on the development of consensus standards for performance and reliability. Because the active solar industry is still composed of relatively small companies that are not directly involved with other building technologies and cannot afford substantial research efforts of their own, the Federal government is the natural agent for pursuing this further development.

Potential active solar applications are not limited to water heating, however. Space heating and, perhaps more importantly, space cooling in warm-weather, high-insolation areas offer tremendous potential for the displacement of conventional, non-renewable energy sources. Realization of this potential will require a continued commitment by the Federal government to active solar technology development.

Further work in these space conditioning areas should be conducted in a more concerted fashion with passive solar heating and cooling techniques, and with efforts to develop more efficient conventional building heating, cooling and lighting systems. An integrated research program into building energy needs is recommended—and has been proposed separately to the Congress—that can take advantage of the complementary potential of all building energy systems. Like the active solar industry, the buildings sector as a whole is composed of small independent firms unable to conduct a centralized research program. Yet, considering that the buildings sector accounts for over one third of the nation's energy use, a concerted and focused effort toward greater building energy efficiency is vitally important.

ACTIVE SOLAR HEATING AND COOLING
PROPOSED FY 1983 BUDGET
(budget authority in millions of dollars)

Advanced Research and Development			7.25
Materials Research: for Glazings; High, Medium and Low-Temperature Absorber Coatings; Collector Enclosures; High-Temperature-Resistant Sealants and Insulation; Lower-Cost Reflectors		4.0	
Active Cooling Concepts: New and Emerging Concepts and Materials for Space Conditioning Applications (e.g. dessicant)		2.0	
Modelling of Integrated (active, passive and conventional) Systems to Assess Potential Load Factors		1.25	
Technology Development			6.0
Residential and Commercial Solar Heating and Cooling		2.25	
Monitoring and Data Collection from State-of-the-Art Systems (publicly and privately financed) to Compare and Document Performance, Reliability and Maintainability	0.75		
Integration With Passive Solar and Conventional Energy Systems in Residential Building Applications	1.5		
Residential and Commercial Cooling		2.25	
Continue Review of Existing Technologies (Rankine, Absorption) to Establish More Complete Understanding of System Economics			
Heat Pumps		0.5	
Review Heat Pump Development in Progress; Assess Potential for Solar to Complement			
Standards		0.6	
Development of Methodologies for Performance Measurement	0.5		
Safety Research on Refrigerant-Charged Systems	0.1		
Training		0.4	
Curriculum Development for Public and Private Training Programs			
Information Dissemination and Technology Transfer			0.75
Development of Research Results in Forms Useful to Active Solar Industry, Building Design Community and Building Construction Industry			
Total Active Solar Heating and Cooling			14.0

Passive and Hybrid Solar Heating and Cooling

As was cited in the preceding section on active solar, the buildings sector accounts for over one third of this nation's energy consumption. Thus, in order to continue to reduce reliance on conventional imported energy sources, it is appropriate and important for the Federal government to continue to support efforts to develop passive solar techniques for meeting building heating, cooling and lighting needs. Because the systems—both conventional and renewable—that address these needs are interrelated, we feel that it is important to study them in an integrated Building Energy Research Program—of which passive solar is a part—to pursue the greatest overall building energy efficiencies possible.

This represents the passive solar component to an integrated building energy research effort. We recognize that considerable progress has been made in passive solar through the Federal R&D effort, primarily in the residential sector. Simple passive solar designs are meeting success in the market for new housing. Yet further Federally-sponsored research is requred to develop more sophisticated passive solar concepts and designs for new structures, and to develop retrofit systems to address the energy needs of the tremendous stock of existing housing. The results of this work must be packaged with the needs of the building industry—for practical, buildable design tools—more in mind.

Passive solar is still underutilized in larger, commercial-type buildings. These are very complex structures, both in their thermal behavior patterns and in the energy delivery systems that they use. Yet they offer tremendous potential for reducing consumption of conventional energy. We feel strongly that the Federal Passive Solar Program, and building energy research effort overall, must devote more effort to the development of materials, systems and design tools appropriate to commercial building applications, that the design community can apply directly in the passive use of solar energy.

The building industry is extremely diverse, composed of mostly small businesses involved in the supply of building materials, and in the actual design and construction of buildings. This kind of industry simply cannot—at this time, at least—conduct the kind of centralized research program necessary to address the tremendous need in the buildings sector to reduce consumption of conventional energy. Thus a continued Federal effort in this area is critically important.

PASSIVE AND HYBRID SOLAR HEATING AND COOLING

PROPOSED FY 1983 BUDGET

(budget authority in millions of dollars)

Research and Technology Development		4.5
Materials Research	1.05	
New Thermal Storage and Glazing Materials for Residential and Commercial Applications		
Experimental Testing	0.7	
New Thermal Storage, Glazing and Moveable Insulation Systems for Residential Applications		
Systems Simulation and Analysis	1.05	
Selection by Empirical Validation of One or Two Computer Design Tools for Residential and Commercial Applications		
Thermal Science Research	1.7	
Thermal Load Dynamics of Residential and Commercial Applications		

Systems Testing and Evaluation		8.1
Collection of Data on Thermal Behavior of Residential and Commercial Buildings	2.8	
Integration of Passive Solar Techniques with Conventional Building Energy Systems	2.8	
Collection of Cost and Performance Data on Integrated Residential and Commercial Systems in Various Climatic Regions	1.75	
Development of High-Efficiency Heating and Cooling Systems for New and Retrofit Residential Applications	0.75	
Information Dissemination and Technology Transfer		1.4
Development of Design Guidelines and Tools for Residential and Commercial Design and Construction Communities	1.4	
Total Passive and Hybrid Solar Heating and Cooling		14.0

Photovoltaic Energy Systems

Photovoltaics, "solar cells" that generate electricity directly when exposed to sunlight, are making progress commercially in remote-site, off-the-grid applications. U.S. photovoltaic manufacturers are thought to have shipped five megawatts worth of systems in 1981, primarily of the first generation single-crystal silicon variety. The progress that represents is due in large part to the substantial Federal R&D effort of the past few years. Yet the real potential of photovoltaics lies with the lower-cost and more efficient cells coming with the second and third generations of the technology. If these are to mature in a timely fashion, however, and if the photovoltaics industry is going to develop into a broad-based and deep one, the Federal R&D support must continue at a meaningful level. Just as importantly, further work must be done on the systems that collect, condition and distribute the electricity from the cells, before any of the cell technologies can be used in widely competitive commercial ways.

The photovoltaics market for U.S. producers is primarily an overseas one. They dominate that market now, but are beginning to receive very serious competition from other nations. Industries have developed overseas that use technologies largely developed in the United States. Some governments are now spending more per capita on photovoltaics R&D than the United States is, and are subsidizing the marketing of these systems worldwide. To meet this challenge, the U.S. must continue the development of superior technologies, and must be more aggressive in pursuing overseas markets. This latter activity has not been a traditional one for U.S business or government. But both must take an active interest in it if this country is going to hold on to the valuable world photovoltaics market.

This budget recommendation represents a substantial reduction from the 1982 level. It recognizes the increased activity in the photovoltaics market and the increased commitment shown in the private sector for photovoltaics commercialization. But it continues program support in areas critical to maintaining the role of innovative and productive small businesses in photovoltaics development. This budget recognizes that one cell technology—single-crystal silicon—has evolved beyond a need for further Federal R&D support. But it maintains program support for the promising, less-developed cell technologies—amorphous silicon, polycrystalline thin film and concentrating cells—and for vital systems development work. In addition to providing for basic research support, which is fundamental to any R&D program, this budget recommends support in other areas uniquely suited to the Federal government at this time: worldwide solar resource assessment by satellite, the development of standards-setting methodologies and the development of a fundamental understanding of the performance of state-of-the-art photovoltaic systems.

The three laboratories that are most heavily involved in photovoltaics research—SERI, Sandia and Jet Propulsion—have performed successfully and continue to have appropriate roles in the program, even as its focus moves toward the second and third generations of the photovoltaics technology. Essentially, we are recommending the continuation of a balanced research and development program that will build on recent years' success and will help make photovoltaics a viable alternative for the generation of electricity. Ongoing work must be followed through to its natural conclusion, to make good on the investment by the government to date, and to keep good faith with members of the private sector who have made substantial financial commitments based on the existence of the Federal R&D program.

PHOTOVOLTAIC ENERGY SYSTEMS

PROPOSED FY 1983 BUDGET
(budget authority in millions of dollars)

Advanced Research and Development		25.0
Amorphous Silicon	10.0	
Polycrystalline Thin Film: Including Copper Indium Selenide and Zinc Phosphide	6.0	
Advanced Innovative Devices and Concentrators: Luminescents	4.0	
SERI In-House Program: Including a Technical Internship Program for Industry Researchers	5.0	
Technology Development		23.0
Advanced and Emerging Materials (emphasizing small business participation, with 50% or greater cost sharing for participating large industries	7.0	
Balance of Systems: Emphasis on Interface with Utility Grid	5.0	
Concentrating Devices	4.0	
Sacramento Municipal Utility District Project	7.0	
Systems Engineering and Standards		6.0
Performance Testing and Data Collection	2.0	
Standards Development	2.0	
Insolation—Data Aquisition	2.0	
Total Photovoltaic Energy Systems		54.0

Solar Thermal Energy Systems

Solar thermal systems, which concentrate solar energy for the production of electricity and industrial process heat, are evolving in a number of different forms that are at varying stages of development and commercial readiness. Parabolic trough concentrators are beginning to enter the commercial market. The central receiver (power tower) technology is being demonstrated near Barstow, California in a 10 megawatt system, and the small parabolic dish technology is being demonstrated in a cogeneration application (electricity and process heat generation) in Shennandoah, Georgia. Each of these demonstrations were made possible by the Federal Solar Thermal Program. The large parabolic dish technology is in the testing stage, and has achieved record efficiencies in the solar-powered generation of electricity. The hemispherical bowl concentrator has been tested at the prototype stage in a project at Crosbyton, Texas. However, at this time it does not show the potential for overall system efficiency needed to justify further Federal R&D support. Finally, the solar pond technology, that uses solar-heated brine for electricity generation, industrial process heat or water desalination, is in an earlier stage of development, but will soon be ready for testing in a prototype system.

Without question, the Federal R&D program is primarily responsible for the progress made to date in solar thermal energy. But it is just as true that further development of these and other solar thermal systems—and their real usefulness to the country—depends on continued support by the government. Industry will assume a greater support role as systems approach commercial readiness, and the Federal program's focus will shift toward technologies in earlier stages of development.

This budget recommendation, slightly less in real dollars than the amount appropriated for solar thermal energy in 1982, would complete Federal R&D support in a number of areas, such as development of the parabolic dish Brayton module, the Small Community Parabolic Dish Project and central receiver heliostat development. It would also continue funding for essential basic and applied research on the emerging technologies mentioned above, and on even newer concepts for the use of solar thermal energy.

SOLAR THERMAL ENERGY SYSTEMS

PROPOSED FY 1983 BUDGET
(budget authority in millions of dollars)

Research			10.3
Research Facilities Operation		4.8	
Central Receiver Test Facility	3.0		
Advanced Component Test Facility (GA Tech), White Sands Solar Furnace, Edwards AF Base, Test Bed Concentrators	1.0		
Parabolic Dish Systems: Edwards AF Base Test Bed Concentrators	0.8		
Parabolic Dish Applied Research; Ceramic Materials and Processes for High Temperature Receivers, Reflective Surfaces, Low Cost System Controls		2.5	
University Research: Innovative Concepts and Processes		1.0	
Sunfuels: Including Hydrogen Production		1.3	
Salt Ponds		0.5	
SERI Capital Equipment		0.2	
Technology Development			14.6
Brayton/Parabolic Dish System		2.5	
Receiver Development: Sodium and Salt-Cooled Concepts		3.3	
Steam Generator: Sodium and Salt-Driven		2.8	
Parabolic Dish: Design Competition for 2nd Generation Concentrators		2.0	
Parabolic Trough: Materials Development for More Efficient Absorbers, Reflectors, Etc.		1.0	
Parabolic Dish Hybrid Systems: Low Cost Natural Gas Substitute Fuels		1.0	
Technology Utilization: Coordination and Utilization of Applicable DOD Work in Heat Engine and Materials Development		1.0	
Heliostats: Adhesion of Reflective Surfaces		1.0	

Systems Applications		33.1
Solar I Operations: Data Collection to Address Performance, Cost & Durability Considerations	10.0	
Central Receiver Repowering Designs: Two Designs with Significant Cost Sharing by Industrial Participants	15.0	
Small Community Parabolic Dish Project	3.0	
Shennandoah: Project Completion	1.5	
Thermal Storage: Demonstration of Technical Feasibility	1.6	
Parabolic Trough Operations: Operation and Data Collection from DOE-funded Projects	2.0	
Program Direction and Planning		1.5
Total Solar Thermal Energy Systems		59.5

Biomass Energy Systems

Biomass currently contributes more energy production in the United States than any other renewable resource, primarily through the direct combustion of wood and wood by-products. Biomass energy systems, including those for making alcohol fuels, are the only renewable energy technologies that produce an actual fuel commodity. For the most part, the direct biomass combustion systems currently in the market are relatively simple conversions of conventional fossil-fuel boilers. But they represent the leading edge of a wide range of technologies for producing and using solid, liquid and gaseous fuels and oils from woody, herbaceous and aquatic plant species. And they have possible applications throughout this country and the world. The potential of biomass energy systems to help meet future energy needs has been well documented. What remains to be done, however, to realize this potential is to continue a broad-based research and development program into both the production of biomass and its conversion into useable energy.

The Federal government's role in biomass energy technology has been an important one. Because much of the work in biomass is conducted by companies not directly involved in energy production or by non-commercial research laboratories, and because much of the biomass resource base is associated with small farm and forest-oriented businesses, a comprehensive and integrative Federal program is needed. Over the past several years, the Federal government has sponsored development work across the wide range of biomass energy applications. Substantial progress has been made, for example, in low-BTU gasification, and those systems are beginning to enter the marketplace. More advanced and efficient woodstoves and fireplace inserts are commonplace in certain parts of the country. Municipal waste combustion systems are alleviating trash disposal problems and simultaneously producing energy.

A great deal more work is needed, however, to develop new plant species, harvesting techniques and conversion processes, before the biomass resource base is adequately developed. Research into plant genetics and cultivation techniques for more productive woody, herbaceous and aquatic species is a multi-year activity and must be carried through to its conclusion. Herbaceous (grassy) plants have been developed, for example, that now exceed the productivity of sugar cane, in terms of energy potential, by 33 percent. Continued research shows the promise of producing species that will double sugar cane's productivity. Even more striking examples of productivity improvement exist in the area of short-rotation woody crops, where Federally-sponsored research work has tripled productivity over three years' time, and promises comparable improvement in the future.

Research into biomass conversion processes has shown similar progress, increasing the process efficiency of medium-BTU gasification technologies by up to three fourths. Continuing research aimed at reducing or eliminating the need for costly oxygen in these processes promises to reduce overall system costs even further.

This budget proposal reflects a level of support that is sufficient to continue critical development work across the spectrum of biomass energy technologies. Such a broad-based program is essential if the nation is to make full and wise use of its immense biomass resource base.

BIOMASS ENERGY SYSTEMS

PROPOSED FY 1983 BUDGET
(budget authority in millions of dollars)

Biomass Production		12.3
Woody Biomass Feedstock Development	4.1	
Genetic Engineering: species screening, tissue culturing and hybridization techniques		
Analysis of Factors Affecting Growth Yields: geographic location, soil quality, fertilization, irrigation, silvicultural methods, frequency of coppicing		
Herbaceous Biomass Feedstock Development	2.0	
Genetic Engineering: species screening, hybridization for production from marginal lands		
Analysis of Cultivation Factors: geographic locations, soil quality, fertilization, etc.		
Environmental Assessment of Herbaceous Biomass Production		
Aquatic Biomass Feedstock Development	3.4	
Species Identification		
Genetic Engineering for Higher Yields		
Analysis of Production Conditions: water composition, flow velocity, nutrients, algal types, harvesting methods		
On-Shore Production Techniques: including comparison with off-shore applications		
Biological Production of Hydrogen	1.5	
Identification of Algae and Bacteria for Producing Hydrogen; Genetic Manipulation to Increase Yields		
Harvesting Systems: conceptual design and analysis	1.0	
Supporting Research: identification of higher yield species	0.3	
Biomass Conversion Technology		11.7
Gasification and Pyrolisis	6.0	
Low-BTU Gasification: examination of physical mechanisms, efficiencies and system emissions		
Medium-BTU Gasification: system efficiency improvement and cost reduction		
Pyrolisis: optimization of petroleum substitute yields		
Liquefaction	1.5	
Lab-Scale Research on Effects of Various Process Conditions, Catalysts, Carriers Liquids on the Production of Low-Oxygen Liquid Hydrocarbons		

Conceptual System Designs to Address Technical and Economic Feasibility as Functions of Scale and to Identify Further R & D Requirements		
Anaerobic Digestion of Cellulosic and Agricultural Residues	1.9	
Lab-Scale Experiments on Digester Designs, Pre-Treatments, Micro-Nutrients, Compaction and Other Operational Factors		
Identification and Genetic Engineering of Micro-Organisms to Produce Increased Biogas Yields		
Supporting Research	2.3	
Basic Studies of Biochemical and Thermochemical Conversion Phenomena		
Innovative Physical, Chemical, Enzymatic and Biological Methods for Increased Fuel Yields		
Environmental Impact (and Mitigation) Analysis		
Total Biomass Energy Systems		24.0

Alcohol Fuels

Alcohol fuels from renewable resources are the only high-grade, liquid fuel alternative marketed in the United States. By mid-1983, the domestic alcohol fuels industry will have on line 400 million gallons—or nearly 10 million barrels—of annual production capacity. Since almost one quarter of the United States' energy demand is in the transportation sector, the contribution of alcohol is important to offset imported petroleum, and for use as an octane enhancer to improve the quality of lower-grade gasolines. According to SERI, alcohol fuels could displace an equivalent of 2.6 million barrels of oil per day.

Today's first-generation ethanol facilities primarily use grains as feedstocks, and co-produce high protein foods in the process. However, there are other readily available resources from which we could produce alcohol that would allow greater yields of fuel, and would do so more efficiently. Cellulosic conversion is one technology that DOE has already invested in, which has the potential of revolutionizing alcohol production. The amount of cellulosic wastes available for conversion to alcohol is staggering; thus research already underway could yield important long-term results. At present, cellulosic conversion using acids and enzymes is in the laboratory stage. The processes require further research and testing.

Another key research area is in the use of membranes to remove water from alcohol in the distillation process, and to remove salt and other chemicals from the food by-products. The use of membranes in this way can reduce the energy requirements of the systems significantly, while their use in by-product preparation can result in much broader application in the production of animal and human foods and of fertilizer. Thus research in membrane technology offers excellent prospects for high payoffs.

In addition, this proposal would provide further funding for important end-use applications development. Alcohol has a wide range of potential uses, ranging from octane enhancement and fuel extension at the refinery level to uses as a fuel for peak-power electric generating units. Of particular promise is the use of alcohol as a neat (pure) fuel in the transportation sector. Dissociation technologies offer significant potential for improving efficiencies in these applications. And finally, increased research is needed—and provided for in this proposal—to advance the use of alcohols in diesel blends, through the use of micro-emulsion blending, turbocharge injection, and other methods.

ALCOHOL FUELS

PROPOSED FY 1983 BUDGET
(budget authority in millions of dollars)

Process Technology Development		6.0
Cellulosic Conversion	2.0	
Ligno-Cellulosic Conversion	1.5	
Alternative Feedstocks from Agricultural and Food Process Wastes	1.0	
Membrane Technology	1.5	
Integrated Systems Development		2.0
Integration with Greenhouses, Aerobic and Anaerobic Digesters and Non-Conventional Food Processing Wastes	1.25	
Enduse of CO_2 for By-Product Preservation or Grain Silo Protection	0.50	
Use of Solar Process Heat for Fermentation and By-Product Preparation	0.25	
End-Use Applications Development		2.0
Use of Ethanol and Ethanol-Oil Blends in Farm Diesels	1.0	
Prototype Testing of More Efficient Alcohol Burning Engines	1.0	
Total Alcohol Fuels		10.0

Wind Energy Conversion Systems

Wind power, like a number of other forms of solar-derived energy, involves applying modern engineering to a power source that is age-old and well known. The wind has been used as a source of mechanical energy for thousands of years, and the most sophisticated mechanical device of earlier days, the multi-bladed American farm wind mill, can still be seen on hundreds of thousands of farms throughout the Midwest.

Today, however, attention has turned to producing electrical power from the wind. While wind electric systems enjoyed a brief heyday in the 1920's and 1930's, before the advent of rural electrification, today's machines take advantage of advances in aerospace and materials technology to produce electricity at much lower costs—costs which are becoming competitive with those of power produced from conventional fuels.

DOE's Wind Energy Program has met or surpassed the cost goals set by its enabling legislation, the Wind Energy Research, Development and Demonstration Act. It has demonstrated that the potential exists for cost-competitive power from both large and small systems, and has stimulated the development of an industry which, although still miniscule, is rapidly growing. What is needed now is to finish the hardware development programs already in place, and to continue developing a research and technology base which can give industry the scientific information needed to keep improving and upgrading systems as they move into the marketplace.

This budget aims heavily toward the development of that "knowledge base." Like other parts of this alternative budget, it is constrained, in recognition of the severe funding difficulties with which Federal policymakers must contend. At the same time, however, unlike the Administration's proposed budget, it recognizes the imperative of continuing a meaningful level of support for a technology which promises to tap an abundant, inexpensive, nonpolluting and domestic source of energy in the years to come.

WIND ENERGY CONVERSION SYSTEMS
PROPOSED FY 1983 BUDGET
(budget authority in millions of dollars)

Systems and Operational Analysis		2.7
Wind Systems Economics and Market Analysis	0.4	
Applications Analysis	1.5	
Analysis of Institutional and Environmental Barriers: Consensus Standards	0.8	
Wind Characteristics		3.0
Modelling and Forecasting	2.0	
Prospecting Development	1.0	
Technology Development		15.7
Aerodynamics	1.2	
Structural Dynamics	1.1	
Materials Characterization and Fatigue Testing	1.1	
Darrieus Vertical Axis Research	1.4	
Research and Testing at Small Systems Test Center, Rocky Flats, CO	2.5	
Troubleshooting and System Improvements on Large Systems	5.0	
Cooperative Research on Loads, Stresses and Fatigue Problems of Small Systems	2.0	
Small Wind Systems for Agricultural Applications (passthrough to USDA)	1.4	
Engineering Development		23.0
Mod-5 Advanced Multi-Megawatt Systems: Complete Federal Share of Cost-Shared Development	20.0	
Complete Operational Field Testing of Mod-2 Cluster at Goodnoe Hills, WA	3.0	
Total Wind Energy Conversion Systems		44.4

Ocean Energy Systems

Ocean Thermal Energy Conversion (OTEC) systems utilize the temperature gradients between ocean layers, applied through a heat transfer mechanism, to drive turbine electric generators. OTEC applications include baseload electricity production for on-shore use and production of energy-intensive products, such as ammonia, on board OTEC platforms themselves.

Technical and economic assessments of OTEC technologies can now be based on the successful operation of both the 18kw (net) Mini-OTEC and the one megawatt test facility, OTEC-1. However, economically competitive commercial-scale plants will be much larger—on the order of 200-400 MW. Achieving OTEC's potential will require design, construction, and operating experience with an OTEC system which more closely approximates a commercial-scale plant. Consequently, this budget proposal provides for Federal cost sharing of preliminary design studies for specific OTEC pilot projects.

Additionally, continued Federal support is needed—and provided for in this proposed budget—to refine OTEC components and engineering techniques, to support continued research on advanced OTEC concepts (such as open cycle modifications), and continued work on alternative ocean energy devices.

OCEAN ENERGY SYSTEMS

PROPOSED FY 1983 BUDGET

(budget authority in millions of dollars)

Management Planning and Analysis		2.8
Technology Development		8.0
Heat Exchanger Tests	1.5	
Ocean Engineering	5.5	
Biofouling and Corrosion	1.0	
Engineering Test and Evaluation—Pilot Plant: Phase 2—Preliminary Design		4.0
Advanced Research and Development		6.0
Alternative Ocean Energy Concepts	2.0	
Open Cycle Subsystems	4.0	
Total Ocean Energy Systems		20.8

Renewable Energy Information

Easily accessible and reliable information about renewable energy is critical to its continued and timely development. The Federal government is playing an important role in this area through the production of technical information oriented toward the research and industry communities, and by maintaining a consumer information service accessible by mail or by a toll-free telephone system. Because the Federal government has been—and should continue to be—central to renewable energy research efforts, it will continue to be the appropriate agent for collecting and publishing technical reports on renewable energy. Consumer information, while still beyond the capability of the renewable energy industry, should increasingly be provided through private means, as the industry develops the financial base to support it.

We are proposing a two-part Federal program in the renewable energy area to meet these information needs. It would continue funding in 1983 for the two most fundamental elements of the existing Federal renewable energy information program.

The Solar Energy Research Institute currently houses a project for the collection, packaging and publication of Federally-supported research products in the renewable energy area. This is an essential service, because research results are often not refined to the extent that they become useful to anyone other than the researchers themselves. Essentially, taking these materials one step further significantly extends their value to the technical and industry communities—as well as their value to the entire nation. A related activity is conducted by the National Technical Information Service. However, the products of that work are not as well refined as the SERI products, nor are they as accessible. Furthermore, SERI, as the leading national laboratory in renewable energy research, is the most appropriate place to conduct this activity.

The National Solar Heating and Cooling Information Center (NSHCIC), operated by the Franklin Institute in Philadelphia, has for several years been conducting for the Federal government a consumer-response service on renewable energy building applications. Its mandate was recently broadened, to include other renewable energy and energy conservation technologies, and it was renamed the Conservation and Renewable Energy Inquiry and Referral Service (CAREIRS). It is important that the Federal government continue funding for this activity in 1983, to provide energy consumers with reliable information on renewable energy options. However, recognizing the need for the private sector to begin carrying a greater responsibility in the consumer information area, the Franklin Institute, through its newly-formed Energy Technology Transfer Center, and leading renewable energy industry and consumer groups are exploring ways to develop a self-sustaining information service. By blending the experience of the Franklin Institute in the areas of document publication and consumer services with the technical expertise and market awareness of industry and consumer groups, a comprehensive, accessible, technically sound and commercially viable renewable energy information network can be developed. We hope that this working relationship can begin in 1984. But for 1983, we are recommending continued funding for the operation of CAREIRS.

RENEWABLE ENERGY INFORMATION
PROPOSED FY 1983 BUDGET
(budget authority in millions of dollars)

Renewable Energy Information		5.0
SERI Technical Information Project	3.0	
Conservation and Renewable Energy Inquiry and Referral Service (CAREIRS)	2.0	
Total Renewable Energy Information		5.0

Renewable Energy International

The market for U.S. renewable energy technologies, at this time, is largely an overseas one. U.S. industries dominate that still-developing market with technologies that generally equal or surpass those of other countries. They are now receiving stiff competition, however, from foreign countries that are adopting U.S. technologies and subsidizing their further development and overseas promotion. The U.S. renewable energy industry, recognizing the importance of the international market, has formed the Export Council for Renewable Energy (ECRE), to help focus its efforts in the export area.

U.S. industry, in general, has not traditionally marketed overseas in an aggressive fashion, and no export promotion infrastructure exists in this country—such as an export trading company—comparable to those that exist in other countries. Furthermore, our renewable energy industries, for the most part, still lack the financial resources necessary to support export development activities on their own.

Considering the value of the international renewable energy market, both to the development of our domestic industry and to the overall U S. trade balance, the Federal government has supported export development activities in the renewable energy area. The DOE Renewable Energy International Program has conducted international market research, export seminars for U.S. businesses and overseas trade shows to bring U.S. producers and potential foreign buyers together. These activities have been highly cost-effective, as was demonstrated in a recent GAO study. They generated millions of dollars in sales of U.S.-made systems at a cost of only a few hundred thousand dollars.

The DOE Renewable Energy International Program has been terminated. The Department of Commerce, however, through its International Trade Administration, conducts similar activities on behalf of U. S. industry in general. It does so on a full-cost-recovery basis, and, while U.S. renewable energy industries are more than willing to share the cost of this service, most of them simply cannot yet bear it in full.

We are proposing, therefore, that until U.S. renewable energy industries develop the financial base and the expertise to conduct export development activities, the DOE Renewable Energy Program share their costs of participation in the Commerce Department's international trade services. We strongly believe that such support is necessary—and cost-effective, from the government's point of view—if the U.S. is to retain its lead in the renewable energy sector that it has been so instrumental in creating.

One other aspect of the international renewable energy trade area that deserves Federal attention is the role of the International Standards Organization (ISO). This body sets standards, to which commodities being traded internationally are held, and are important guarantors of product quality. These standards can also be abused, however, through the inclusion of unnecessary and irrelevant considerations. The standards can then become effective barriers to the trade of products from certain countries or companies. This is a long-standing tactic in the international trade arena, and already has been attempted in the area of renewable energy. The surest way to avoid discrimination of this sort is to actively participate in the activities of the ISO, and to promote the adoption of reasonable and consistent standards.

It is important, we believe, that the Federal government assist the U.S. renewable energy industry in its active participation in ISO activities. Here again, a small Federal investment can bring a substantial return through the success of U.S. renewable energy technologies in the world market.

This budget recommendation also contains funding to complete the U.S. share of the SOLERAS Project, a multi-technology, bilateral project conducted by this country and Saudi Arabia.

RENEWABLE ENERGY INTERNATIONAL

PROPOSED FY 1983 BUDGET
(budget authority in millions of dollars)

Renewable Energy International		11.5
International Market Development	2.0	
Trade Missions and Fairs; Export Seminars; International Standards Organization Activities		
SOLERAS Project	9.5	
Total Renewable Energy International		11.5

Program Support

The Program Support fund was instituted during the 1982 budget process, to provide funds to the DOE Renewable Energy Program managers, that they could use to offset unforseen expenses associated with the programs' activities. Formerly, funds for these purposes were set aside through a tax on individual technology program accounts. This complicated the planning of program activities by Congressional committees and by the technology program managers themselves. Creation of a separate Program Support account has resolved this problem, and we recommend that it be continued.

PROGRAM SUPPORT

PROPOSED FY 1983 BUDGET
(budget authority in millions of dollars)

Renewable Energy Program Support	4.0

Solar Reserve Account

The Solar Reserve Account was instituted during the 1982 budget process, and contains funds to offset the cost of important renewable energy development activities that are not assumed as expected by the private sector. In 1982, funds are being drawn from this account, with the permission of the Congressional Appropriations Committees, for support of activities in the passive solar, biomass and solar thermal technology areas, and to help pay termination costs for the Regional Solar Energy Centers.

One specific activity that is being supported with Solar Reserve Account funds is the Deparment of Energy's and the National Oceanic and Atmospheric Administration's project in solar resource assessment. This activity has a value applicable to a number of renewable energy technologies. Thus, it is appropriate that it be funded from a cross-cutting program account such as the Solar Reserve Account. Solar radiation assessment, as well as the recording of climatological data for specific sites around the country, is absolutely fundamental to an accurate understanding of the potential of various renewable energy technologies. The federal government is uniquely suited for this task, because of NOAA's central role, and because it is, at this time, beyond the capability of the diverse and regionally-focussed renewable energy industry.

One other activity that we believe is appropriate to the Solar Reserve Account is assisting renewable energy industries and professional groups make use of research results and materials that have been compiled by the DOE Renewable Program. Renewable energy interest groups, particularly the industries, have been frustrated at their inability to make use of the Renewable Energy R&D Program's products. Considering the way the programs have already been scoped down, assisting them in doing so now would permit the saving and practical use of valuable materials that might otherwise never be applied. A series of contracts with leading renewable energy industry and professional groups, on a one-time basis, would facilitate an accelerated transition of renewable energy from the public to the private sector, and would enhance the value of the federal investment in renewable energy made so far.

SOLAR RESERVE ACCOUNT

PROPOSED FY 1983 BUDGET

(budget authority in millions of dollars)

Solar Reserve Account			3.0
Solar Radiation Assessment		1.5	
NOAA Satellite, Ground Measurements	1.0		
SERI Spectral Measurements	0.5		
Technology Transfer Contracts		1.5	
Total Solar Reserve Account			3.0

TESTIMONY OF

DAVID H. MOULTON, POLICY DIRECTOR,

ENERGY CONSERVATION COALITION

On Behalf of the Following Members of the Coalition:

Conservation Foundation
Environmental Action Foundation
Environmental Defense Fund
Environmental Policy Institute
Federation of American Scientists
Friends of the Earth
National Audubon Society
National Consumers League
Natural Resources Defense Council
National Wildlife Federation
Sierra Club
Solar Lobby
Union of Concerned Scientists

BEFORE THE

COMMITTEE ON GOVERNMENTAL AFFAIRS,

UNITED STATES SENATE

SEPTEMBER 15, 1982

Mr. Chairman, my name is David Moulton and I am Policy Director of the Energy Conservation Coalition (ECC). ECC is a private, nonprofit and nonpartisan organization established in 1980 to promote energy efficiency. The core of our membership is a national network of citizen organizations. We are run by a Board of Directors comprised of representatives from 15 major national consumer, environmental and public interest citizen groups whose combined membership approximates 6 million people. I appear before you today on behalf of the following members of ECC:

Conservation Foundation
Environmental Defense Fund
Environmental Policy Institute
Federation of American Scientists
Friends of the Earth
National Audubon Society
National Consumers League
Natural Resources Defense Council
National Wildlife Federation
Sierra Club
Solar Lobby
Union of Concerned Scientists
Environmental Action Foundation

We appreciate this opportunity to comment on S. 2562, the proposed "Federal Reorganization Act of 1982." We wish to make it clear at the outset that we support a strong federal presence in the guidance of national energy policy. Our national security, the health of our economy, the reduction of regional and economic inequities all suggest that energy is not just another issue for the Commerce Department. With this perspective in mind, our remaining comments can be reduced to two fundamental parts relevant to federal energy conservation programs.

First, any radical reorganization of federal energy activities will perpetuate and deepen the administrative turmoil at DOE, particularly in the Conservation and Renewable Energy division, to the further detriment of important energy conservation goals.

Second, this particular reorganization proposal reflects a sense of energy priorities that places concern for energy efficiency last -- a most wasteful and uneconomic set of priorities.

Our conclusions lead to a single recommendation: We recommend that both Congress and the Administration redirect the time and energy spent considering this bill to the more urgent and necessary task of managing existing programs efficiently and cost-effectively.

DOE NEEDS STABILITY, NOT REORGANIZATION

The recent history of energy reorganizations is a chaotic one. It began with the creation of the Federal Energy Office in 1973. Shortly thereafter, Congress supplanted this Office with the Federal Energy Administration, and then passed the Energy Reorganization Act of 1974 establishing the Energy Research and Development Administration and the Nuclear Regulatory Commission.

In the meantime, of course, the Federal Power Commission, the Department of Interior, the Department of Housing and Urban Development, and the Department of Transportation, all increased their own post-embargo activities in energy policy. Various administrations attempted to coordinate the resulting conflicts through interagency councils, but as the importance of consistent energy policy increased, so did the need to exert more control over the growing confusion. The Department of Energy Organization Act was designed to pull these many energy concerns together under one roof, and to give cabinet-level status to the issue.

When DOE was established in 1977, it was simultaneously made responsible for a full platter of new energy statutes including President Carter's multititled National Energy Act. Not surprisingly, a prolonged period of bureaucratic disarray ensued, as organizational, regulatory, and personnel decisions swirled around the new agency. It took most of President Carter's term of office for this confusion to subside to a reasonable level of efficiency.

It is impossible to know whether the early years of DOE would have been smoother if the Administration had not undertaken both a major reorganization and a major shift in policy at the same time. We believe it is fair to conclude from this experience, however, that any hope for managing energy policy efficiently is considerably dimmed when major structural and substantive changes are imposed simultaneously.

Unfortunately, we now appear headed for a more extreme version of these past problems. President Reagan has already begun to impose a set of sharp policy changes. Shortly after taking office, the President suspended a host of pending regulations, including energy regulations, and proposed an energy budget that reflected a very radical restructuring of the federal role in energy policy. This has led directly to yet another period of utter turmoil. On the one hand, OMB and DOE have directed that the Department be managed as if their proposed shut-down-and-dismantle budgets were actual policy. On the other hand, Congress has continued to support a more balanced federal policy with a budget necessary to sustain a federal presence (although we feel strongly that both the budget and the policy balances struck by Congress are insufficient to deal effectively with the Nation's energy problems.)

In the area we know best, for example, DOE's energy conservation budget was $802 million when the President took office. Deferrals reduced FY 81 funding to $631 million. Then the President proposed a FY 82 budget of just $104 million, but Congress appropriated $386 million. The President proposed a FY 83 budget of $22 million--a shut-down budget--which Congress is now considering. In the meantime, DOE has cut fulltime energy conservation employees from about 600 to about 300, leading Congress to suggest minimum employee levels. RIFs, downgradings, and reassignments have meant that many offices are now run by employees who know little about their new responsibilities. All of this has demoralized the staff and completely confused the subdivisions about whether their respective missions should be carried out according to law, or buried according to the wished of their bosses. It should not have been a surprise that on July 19, GAO released its latest report to Congress on the impact of reductions in force in the Conservation and Renewable division, concluding that "major results were a loss of ability to provide adequate monitoring of State and Local Assistance Programs, high attrition and inability to fill vacancies due to Conservation and Renewable Energy R & D Programs' uncertain future, and loss of continuity in management and staff in all programs."

This is not a propitious moment to reorganize. Reorganization, even to fulfill valid principles of theoretical effciency, have a way of overwhelming such principles with a protracted period of practical uncertainty. Changes in physical space, telephone numbers, support staff, lines of authority, clearance processes all contribute to the problem.

If these procedural practicalities where to be introduced now on top of the confusion associated with abortive attempts to alter substantive policy, it would compound and perpetuate DOE's difficulties at the worst possible time. At a time of severe budget cuts, we should be looking for ways to reduce the time and effort spent on tinkering with the bureaucracy. S. 2562 takes us in the opposite direction. Our experience has convinced us that a stable structure, not a continually shifting one, is the most fundamental missing element at DOE.

S.2562 WOULD UNDERMINE, NOT REORGANIZE, FEDERAL ENERGY CONSERVATION PROGRAMS

The specific provisions of S.2562 are not neutral towards alternative energy sources. Indeed, they reflect a particularly misguided set of energy priorities that are particularly threatening to our national need to increase energy efficiency. We object strenuously to imposing these priorities through organizational changes without new authorizing legislation to support them.

The current structure of DOE includes an Assistant Secretary responsible for energy conservation and renewable energy. This structure gives energy conservation a voice with direct access to Cabinet-level decisions through the Secretary of Energy. When staffed with competent professionals, this structure can assure that increasing energy efficiency retains a prominent role in national energy policy.

S.2562, in contrast, assigns energy conservation, along with every other energy source except nuclear power, to a 'catchall' Assistant Secretary for Energy Technology, Conservation and Alternative Sources. Such alternative sources are to include oil, gas, coal, and solar. Nuclear energy, however, not only escapes this bureaucratic block grant, but acquires two separate Assistant Secretaries with responsibility for various aspects of civilian nuclear power. All three of these Assistant Secretaries would report to a Deputy Secretary for Energy, who would then report to the Secretary of Commerce.

Therefore, S.2562 would move most energy issues one step further away from the ear of the President. At the same time, it would assure that nuclear concerns would dominate the Deputy Secretary for Energy's agenda.

Meanwhile, of course, nuclear concerns would also maintain *direct* access to the Commerce Secretary on another track, through the Deputy Secretary for

Defense Programs, whose primary responsibility is "for nuclear-related functions that support the Department of Defense."

This structure seems lopsided indeed. It is simply irrational to move all energy concerns except nuclear concerns under a single Assistant Secretary. Moreover, it reflects an approach to energy issues with much wider implications than the proper organization of a government agency. We are, of course, particularly disturbed by this Administration's repeated failure to recognize the importance of energy conservation to any effective energy policy. While Secretary Edwards continues to state that "our energy policy has two pillars -- conservation and production," this policy actually teeters precariously on the single pillar of production. This is particularly frustrating in view of his own admission that federal energy conservation programs may account for as much as 5 percent of annual energy savings worth as much as $3 billion dollars.

There are other reasons to question this proposal. The General Accounting Office has pointed out that the Administration's estimates of savings for reorganization are so poorly calculated that they do not even include an analysis of the costs of reorganization. Moreover, the Administration's savings estimates appear to reflect policy changes that have little to do with reorganization. They would come, for example, from totally eliminating the energy conservation programs, not from any efficiencies associated with transferring such programs to Commerce.

In conclusion, we urge this Committee to redirect its energy and resources to a truly urgent task -- the effective management of ongoing energy conservation programs at DOE.

Congress should not tolerate the serious mismanagement that the GAO investigation revealed. These programs address important barriers to an effective energy conservation marketplace. Moreover, that market is collapsing under the weight of high interest rates and economic uncertainty. A recent analysis by Oak Ridge National Lab found that less than 30 percent of the energy savings we enjoyed in 1981 resulted from investments in energy efficiency. We must increase this investment dramatically if we expect to enjoy new growth while controlling our appetite for insecure oil imports or other forms of expensive energy.

Senator PERCY. I want to thank all of our witnesses for responding today, particularly you two for being the anchormen, so to speak, and I want to commend you for the work that you are carrying on.

The hearing is adjourned.

[Whereupon, at 12:55 p.m. the committee recessed, subject to the call of the Chair.]

FEDERAL ENERGY REORGANIZATION ACT OF 1982

TUESDAY, SEPTEMBER 21, 1982

U.S. Senate,
Committee on Governmental Affairs,
Washington, D.C.

The committee met at 10 a.m., in room 3302, Dirksen Senate Office Building, Hon. William V. Roth, Jr. (chairman of the committee) presiding.

Present: Senators Roth, Glenn, and Schmitt.

OPENING STATEMENT OF SENATOR ROTH

Chairman Roth. The committee will be in order.

Today, the Senate Committee on Governmental Affairs convenes the fourth in a series of hearings on the Federal Energy Reorganization Act of 1982, S. 2562.

Our hearing will focus on the energy research and development programs carried out by the national laboratories and at facilities located on our university campuses.

We will have before us representatives from the national laboratories, the university community, and we will hear from the man directly responsible for these programs in the Energy Department headquarters office, the Assistant Secretary for Energy Research, Dr. Alvin Trivelpiece.

I am particularly pleased that Senator Jack Schmitt will be here shortly to chair a major portion of this hearing.

Senator Schmitt, with his professional background and keen interest in these research and development activities, is well equipped to develop a constructive hearing record. I look forward to his views and to his questions.

It is fair to say that the research and development programs that we will examine today are something of a national treasure. Our laboratory facilities and the men and women who work in them are of preeminent quality. They are responsible for the technological edge that our country continues to enjoy in an ever more competitive world.

Design, development, and testing of nuclear weapons carried out by the national laboratories is essential for us to meet our security needs.

But with many of our developing technologies, safety is a very important and challenging factor. The national laboratories have numerous efforts underway to insure that the transportation and storage of potentially harmful energy products is carried out with the utmost safety and care.

In addition to the national laboratory efforts, many important R&D efforts are carried out by our university research centers. The Institute of Energy Conversion, located on the University of Delaware campus in Newark, is an excellent example of this through its work to develop solar energy technology.

The Institute laboratory is devoted to the development of thin film photovoltaic cells and as many of you know these solar cells convert sunlight directly into electricity. The cells are solid state devices which require little maintenance and are modular in nature, making them adaptable to a wide range of energy systems.

The work at the Institute touches upon all major aspects of solar cell development, including the design, synthesis and analysis of electronic materials, photovoltaic device, design, analysis and development and photovoltaic unit operations.

The accomplishments of the Institute in its 10 years of operation are indeed impressive. The IEC has developed the most complete thin film solar cell research facility and staff in the world. Eight patents have been issued, two patent applications have been allowed, and seven additional patent applications have been filed relating to solar energy development.

Over 40 professionals have received all or part of their education and experience at the University of Delaware and are now working in the photovoltaic industry. This is an impressive record and one of which we can all be proud.

At the outset I said that the national laboratory and university R&D efforts are a national treasure. They must be guarded and cared for as we consider the reorganization proposals before the committee. We must make certain that these research facilities retain the continuity of long-term planning capability to do their work most effectively.

I have not read the entire statement but it will be incorporated as if read.

[The statement referred to follows:]

PREPARED STATEMENT OF SENATOR ROTH

Today the Senate Committee on Governmental Affairs convenes the fourth in its series of hearings on the Federal Energy Reorganization Act of 1982, S. 2562. In our hearings held earlier this year we heard administration representatives and former energy department officials present their views on our national energy needs and on this reorganization proposal. Last Wednesday the committee took testimony from energy experts concerning the renewable resource and conservation programs so vitally important to a balanced national energy program.

The hearing today will focus on the energy research and development programs carried out by the national laboratories and at facilities located on our university campuses. We will have before us representatives from the national labs, the university community and we will hear from the man directly responsible for energy research policy in the Energy Department headquarters office, the assistant secretary for energy research, Dr. Alvin Trivelpiece.

I am especially pleased that Senator Jack Schmitt will be here shortly to chair a major portion of this hearing. Senator Schmitt through his professional background and his keen interest in these research and development activities is well equipped to develop a constructive hearing record. I look forward to his views and his questions, and intend to consort closely with him on this legislation.

It is fair to say that the research and development programs that we will examine today are something of a national treasure. Our laboratory facilities and the men and women who work in them are of preeminent quality. They are responsible for the technological edge that our country continues to enjoy in an ever more competitive world and are the key to achieving energy independence.

The design, development, and testing of nuclear weapons carried out by the national laboratories is essential for us to meet our security needs. In addition, these facilities also seek new means of producing power for civilian uses. Experiments now underway to control magnetic fusion could result in important sources of power in the decade of the 1990's and beyond. Pilot projects to explore the potential of solar energy may allow us to fully utilize this renewable energy source.

With many of our developing technologies, safety is a very important and challenging factor. The national laboratories have numerous efforts underway to ensure that the transportation and storage of potentially harmful energy products is carried out with the utmost safety and care.

In addition to the national laboratory efforts, many important R and D efforts are carried out by our university research centers. The Institute of Energy Conversion, located on the University of Delaware Campus in Newark is an excellent example of this through its work to develop solar energy technology.

The institute laboratory at the University of Delaware is devoted to the development of thin-film photovoltaic cells. As many of you know, photovoltaic or solar cells convert sunlight directly into electricity. The cells are solid state devices which require little maintenance, and are modular in nature making them adaptable to a wide range of energy systems.

The work at the institute touches upon all major aspects of solar cell development including the design, synthesis, and analysis of electronic materials, photovoltaic device design, analysis, and device development and photovoltaic unit operations.

The accomplishments of the institute in its ten years of operation are impressive. The IEC has developed the most complete thin-film solar cell research facility and staff in the world. Eight patents have been issued, two patent applications have been filed relating to solar energy development. Over 40 professionals have received all, or part, of their education and experience in photovoltaics at the University of Delaware and are now working in the photovoltaic industry. This is an impressive record, and one of which we can all be proud.

I would like to stress again that the national laboratories and university research and development capabilities are a national treasure and must be guarded and cared for. As we consider the reorganization proposal before the committee we must make certain that these research facilities retain the continuity and are granted the long term planning capability to do their work most effectively.

I am very pleased to call as our first witness Dr. T. W. Fraser Russell, the director of the Institute of Energy Conversion at the University of Delaware, to aid us in our deliberation on S. 2562.

Dr. Russell is the Allan P. Colburn professor of chemical engineering as well as the director of the Institute of Energy Conversion at the University of Delaware.

Dr. Russell received his bachelor and masters degrees from the University of Alberta and his doctorate from the University of Delaware.

He has worked as a design engineer for the Union Carbide Company and has served on the Research Council of Alberta. Dr. Russell designed the first multi-purpose continuous chemical processing plant in Canada.

He has been affiliated with the University of Delaware for nearly 23 years and has been director of the Institute for Energy Conversion for three years.

Dr. Russell, I think that you are exceptionally well suited to address the important research and development issues before the committee today. I welcome you here and look forward to your comments.

Chairman Rᴏᴛʜ. At this stage I am very pleased to call our first witness, Dr. T. W. Fraser Russell, the director of the Institute of Energy Conversion at the University of Delaware to aid us in our deliberation on S. 2562.

Dr. Russell, it is indeed a pleasure to welcome you here today. I would like to point out to the audience that you are the professor of chemical engineering as well as the director of the Institute of Energy Conversion at the University of Delaware.

Dr. Russell received his bachelor and masters degrees from the University of Alberta and his doctorate from the University of Delaware. He has worked as a design engineer for the Union Carbide Co., and has served on the Research Council of Alberta.

Dr. Russell designed the first multipurpose continuous chemical processing plant in Canada. He has been affiliated with the University of Delaware for nearly 23 years and has been director of the Institute for Energy Conversion for the last 3 years.

Dr. Russell, I think you are well suited, immensely well suited to address the important R&D issues before the committee today. I welcome you here to present your views.

TESTIMONY OF T. W. FRASER RUSSELL, DIRECTOR, INSTITUTE OF ENERGY CONVERSION, UNIVERSITY OF DELAWARE

Mr. RUSSELL. Thank you, Senator.

My name is T. W. Fraser Russell. I am the Allan P. Colburn professor of chemical engineering and director of the Institute of Energy Conversion of Delaware.

I appreciate this opportunity to address your committee and to bring to your deliberations the experience of a major university-based energy research and development organization.

The Institute of Energy Conversion was established by the university in 1972 and now occupies a new 40,000-square-foot laboratory on the university campus.

I think it worthy of note that this institute and its goals of performing research and development that would substantially contribute to solving the Nation's long-range problems, was established before the first OPEC oil embargo.

For more than a decade, the institute has focused on the development of low-cost thin-film solar cells which convert sunlight into electricity. It is generally accepted that this technology will make a substantial contribution to a secure and renewable energy supply by the end of this century.

Congress and the executive branch since the administration of President Nixon have stated as a major national goal the development of new energy technologies, in particular those of a renewable and inexhaustible nature.

All branches of government seem to recognize that to do so will require the successful conduct of what is generally known as long-range, high-risk, high-payoff research. An example of Congress recognition of the problems and potential of solar energy is the 1978 Photovoltaic Research and Demonstration Act.

The Institute of Energy Conversion also recognized the need for such research programs and we have participated in achieving several of the interim goals of the national photovoltaic program. Also, as indicated to you, Senator Roth, by Mr. Hefflinger of the Department of Energy, we have become the largest university group supported by his department under their advanced research and development program.

Today, the institute is unique in a number of key ways, including the breadth and experiences of the research staff, the range of equipment available to them, its growing portfolio of patented inventions and its close and fruitful association with industrial organizations which have both the interest and resources needed to use the results of research in the process of innovation from the laboratory to the marketplace. Further, the institute has provided an education in photovoltaics for about 40 professionals who have moved on to research and management positions in the photovoltaic field.

I would now like to focus my remarks on aspects of Federal energy research policy which I feel are germane to your questions concerning the role of the National Energy Laboratories in energy research. I shall rely principally on my experiences in solar R&D from the perspective of an independent, academic-based research organization.

Before discussing the activities of the National Laboratories in the area of renewable energy research, let me again stress that I am going to refine my remarks to the renewable energy research. I think it is appropriate to differentiate between the various types of organizations.

A number of the laboratories are very closely associated with universities and play a key role in their graduate research activity. In contrast to these, are the Government-owned-contractor-operated laboratories which, although some may be managed by universities, are essentially distinct from the academic programs.

Finally, in a separate class is the Solar Energy Research Institute which was set up by Congress specifically for research in solar energy and which has been in existence for a comparatively short time.

A major problem with a majority of the National Laboratories is that they were established to perform work in high technology areas, often associated with nuclear energy and were given missions where technical success was dominant and economic considerations very much secondary.

Practical utilization of renewable energy requires the exact inverse of this with economic considerations totally dominant and determining the usable technology.

Currently, a report is being prepared for the Energy Research Advisory Board on the National Laboratories which I am sure will be available to this committee. Although this report is not yet in its final form, it is quite clear that a major conclusion will be to reaffirm the traditional reluctance of the Federal Government to conduct those activities which are well within the purview and scope of private industry and non-Government organizations.

Research activities at the National Laboratories, and particularly the Solar Energy Research Institute, can be thought of as falling into two classes:

1. Internal research.
2. Contract research.

Internal research activities of the National Laboratories in the renewable energy field should be carefully scrutinized and probably eliminated. The issue is not so much one of competence of effort, although there are serious questions on this matter, too, but one of policy and purpose within our economic system.

Technologies such as nuclear weapons, production and reprocessing of nuclear fuel, public health, and environmental protection are characterized by either the government being the sole user of the results of research and development or government being designated by law to be the overseer of the dissemination of the results of R&D for the public good.

The process of innovation in our economic system has flourished through a complex blend of private relationships in which Government plays no direct role in their execution.

I believe that whether it is renewable energy sources, such as photovoltaic electricity from the sun, or our future supplies of liquid fuel from domestic fossil reserves, internal research carried out by national laboratories is unlikely to make a significant contribution.

The Federal Government, of course, must play a role in energy research. Reorganization of the Federal agency responsible for energy research provides an opportunity for Congress and the administration to shape that role.

Government must provide economic support that will underwrite the large, long-term investments needed to secure our energy future, provide a rational regulatory and economic policy, and support the educational institutions which educate young people and generate new ideas.

I believe that Congress has begun to properly address these needs by providing in the 1981 Economic Recovery Act certain research tax credits and, in the 1980 amendment to the patent statutes, Public Law 96-517, to allow universities and small business to retain title to inventions made with Government support.

This was a very important set of congressional activities and we have yet to see all of the results, but it looks like it is working quite well.

The second activity carried out by Government-owned contractor-operated laboratories in Federal agency research is that of contract management. The question becomes one of how Government can best fulfill its fiduciary responsibilities to the taxpayers in requiring accountability from those who spend Government funds.

As an academically based researcher, I would be the first to admit the dangers of so-called micromanagement of creative activities. Nevertheless, effective management needs to do more than simply protect the Government's interest from abuse; competent contract management can greatly enhance the effectiveness of Government investment in research and development.

In the early 1940's, there was a cooperative effort in this country between the pharmaceutical industry, Government agencies, and the universities which provided enough penicillin to save many thousands of lives by the time of the D-Day invasion in Normandy.

I think that we have lost that spirit of cooperation and unfortunately, our experience in the area of contract management has been generally one of exasperation. As an example, let me recount for you what my colleague, Dr. John D. Meakin, said in testimony before Representative Ottinger's Committee on Science and Technology in 1979.

Dr. Meakin described his experience of nearly a decade as principle investigator of a long-range research program to develop low-cost thin-film photovoltaic cells. During a 10-year period, the research was supported by four district entities, the National Science Foundation, the Energy Research and Development Administration, the Department of Energy, and, finally, the Solar Energy Research Institute. Technical oversight was provided at various times by 13 different program monitors and funding was provided in a total of 16 separate agreements.

The inability of such a frequently changing management structure to truly monitor and assist in the planning of research programs is in stark contrast to the reporting and review procedures required by the contracts. It was not unusual to be required to provide up to 30 reports of a technical or financial nature to the program monitor, in addition to attending one or two formal review meetings each year.

When the Solar Energy Research Institute—SERI—was created in 1975 with the declared purpose of being a focus for solar energy research, we were hopeful that SERI would at last provide constancy and competence. During its early days, SERI's growing pains had the expected unfortunate effects. Now, it appears that SERI, in response to Congress and the administration's desire to limit the growth of Federal spending while improving the atmosphere for innovation in energy research, has plans to substantially reduce funding of contract research mainly at universities and small businesses while expanding its internal research.

It is my view that just the contrary direction should be taken. That is, a sharp reduction in internal research, and an increase in the level and quality of externally contracted research.

The Federal Energy Reorganization Act of 1982, which this committee is deliberating, provides at the very minimum an opportunity for Congress to refocus national laboratories to those matters which are the legitimate business of Government while making it possible for private independent organizations, such as industry and universities, to carry out the process of innovation that will lead to a secure energy future of America.

The industrial and academic communities are much better positioned to conduct the necessary research, educate the required scientists and engineers, and commercialize the results of the research work than any Government laboratory no matter how well equipped, staffed, or managed.

Clear distinctions need to be made in assigning funds to the national laboratories so that they are not in a position to service their internal research functions to the detriment of outside contracted research.

Thank you. I will be happy to answer any questions.

Chairman Roth. Thank you, Dr. Russell.

I will be frank. One of my very real concerns, particularly in these times of budget restraints, is the fact that the Government, the Government labs, the Government personnel have a great incentive to retain as much of the funds for their own internal use rather than to utilize the university laboratories.

I have had a number of people express this concern which I think is obviously shared by you and very frankly, I too am worried about that prospect.

I think it is extraordinarily important for the reasons set out by you that we utilize the private laboratories, especially the university laboratories, because it has been my experience that the more diversity and the more people you have involved in the research process, the better opportunity you have of bringing about new developments, new discoveries, new inventions.

So that I think you have hit a point that we have to be very much concerned about.

Let me make sure I understand what you are saying.

One of the reasons you feel so strongly in this area is that in the national laboratories there are different incentives and different factors coming to bear and that these officials are not as concerned about the commercialization, whereas the principal responsibility of any department of energy or organization should be to develop new sources of energy that are commercially feasible, that are at costs that people can afford to pay.

You don't have that kind of climate in a national laboratory that you do in your university that are in many cases working with private industry; is that correct?

Mr. RUSSELL. That is correct, Senator Roth.

I think in the area of photovoltaics, for instance, we have a program in which we are trying to devise schemes for manufacturing millions of square meters of photovoltaic cells. This is what we have to have if we are going to supply energy needs and people are going to get any benefits from it.

We have to make them in huge quantities. Although the photovoltaic program has been reasonably well managed, I do not believe that they have paid enough attention to this important aspect of the planning.

We have contracts with a number of major industrial concerns and we have a program at the institute, specifically designed to take results from the laboratory scale at 1 square centimeter to the commercial scale at millions of square meters.

We need to continue that research. Otherwise, it will just spend the rest of its life in the laboratory. This does not do society any good.

Chairman ROTH. The other point which is an interesting one to me is that so-called GOCO plants, that is the Government-owned contractor operated laboratories run by universities are not in your judgment in the true sence a university or academia laboratory, that they have become somewhat independent; is that correct?

Mr. RUSSELL. I think there are many different varieties. Some work rather closely with the universities. I believe that the laboratory at the University of California at Berkeley works very closely with the university and some do not.

I don't have much experience with anything other than the Solar Energy Research Institute.

Chairman ROTH. What activities have you had at the University of Delaware pursued to encourage the commercialization of the patents that you have been awarded?

Mr. RUSSELL. We have now 10 patents that have been assigned to the University of Delaware and we have used this patent package to attract research contract dollars from various industrial concerns.

At the present time we have about half a million dollars worth of research funds from such organizations as Chevron, Shell, and Sohio. This is used to do research to bring the technology from the laboratory scale to the full commercial scale.

In addition to that we have a lot of contacts that are not controlled by formal contracts. Many engineers and scientists visit the

Institute. We must have 15 or 20 firms visiting the Institute every year.

Chairman ROTH. I know that the Institutes for Energy Conversion work with the Solar Energy Research Institute in Colorado.

In your opinion, does SERI in its management of the photovoltaic program meet the goals set by the Congress for the development of solar technology?

Mr. RUSSELL. I think they pay attention to the goal of developing efficient cells and developing durable cells but I do not believe that SERI pays attention to the goal of developing cells at the millions of square meter level that we need to bring cheap electricity to society.

I do not believe that in their evaluation of research programs that they consider the factor of commercial scale processing potential.

Chairman ROTH. Which is half the battle really in what we are trying to accomplish.

Mr. RUSSELL. Yes. I believe so. SERI is in the process of not cutting back on their internal research but expanding. They do so at the expense of universities and small businesses.

Chairman ROTH. Let me ask you an additional question about your relationship with SERI.

How would you characterize that relation with SERI program managers? Have you experienced any difficulties? Are there problems with SERI acting in both a contract management and in behalf of a research role?

Mr. RUSSELL. On a personal level we have had generally a good relationship. However there has been frequent change in managers and each time that occurs you have an education period to bring the new person up to speed.

The most recent case was our silicon program. The new program manager was an expert in wind technology. We have a good deal of effort to train people. There has also been put out a number of appointments at SERI who are fresh Ph. D's. They are of necessity inadequately experienced to direct programs which in our case are staffed with researchers of 10 to 20 years experience.

A specific difficulty which is become even more acute is the conflicting goals of building up the inhouse research effort and supporting research at industrial and university labs.

All SERI personnel work for the same boss. If I were directing SERI, I guess I would try to build up the internal research effort too. There are too many various subtle ways of doing which cut off funding to the outside for us to combat it effectively.

Chairman ROTH. Isn't what you are suggesting a classic conflict of interest?

Mr. RUSSELL. That is correct. Unless SERI is specifically directed to put a certain percentage of its funding outside, I think we will always have this.

Chairman ROTH. I think that is a point we are going to have to wrestle with in the reorganization.

What guidance have you been given by the Energy Department regarding the administration of your program for fiscal year 1983?

Mr. RUSSELL. I think one could characterize the photovoltaic management from DOE as being quite good. It has certainly been superior to what DOE has supplied in the area of thermal solar research.

Chairman ROTH. In your discussions with other faculty from the University of Delaware as well as administrators from other universities, have you discussed the need to prepare and train engineers and scientists to carry out our R&D programs in the future? What conclusions have you drawn concerning our ability to meet this need?

Mr. RUSSELL. Essential to successful graduate research is continuity of support during the graduate study period, which depending upon how hard one works takes anywhere between 3 and 5 years, let's say 4.

It is a fact well recognized by many of the Federal agencies supporting the research at universities. The history of support in the energy research since 1972 has been one of virtually continuous change and uncertainty. As a consequence there have been many difficulties for those faculty who choose to respond to the declared national goal of building up an academic base and many faculty have been discouraged from entering such an unstable field. We have lost a lot of talent.

Chairman ROTH. I think, frankly, we have to train more scientists, engineers, and less lawyers. [Laughter.]

Senator SCHMITT. That is also Shakesperian. [Laughter.]

I just would want to compliment the chairman for his focus on this particular hearing.

I will have a statement later when I take over the Chair as I think I am supposed to do.

I also would just have one question for Dr. Russell.

Have you noticed any impact yet of the revision in patent policy as it relates to small businesses and universities, the so-called Bayh-Dole bill?

Mr. RUSSELL. Yes. I think that was a very successful piece of legislation. What we have been able to do since we obtained ownership of the patents conducted with DOE research is attract two or three major industrial contracts for the Institute of Energy and I note from talking to various small businesses such as Chronar in New Jersey that they have found the bill also very useful.

Senator SCHMITT. I am glad to see it is having the desired result.

Mr. RUSSELL. It takes awhile for people to understand it.

Senator SCHMITT. I notice there are a few things you can talk about that will put people to sleep. Patent policy is one of them. But it is absolutely essential to get the transfer of technology moving more rapidly into the private sector.

Mr. RUSSELL. Yes, because at the time when it was unclear, if a piece of Government research was done, industrial organizations wouldn't touch it with a 10-foot pole because they didn't know who was going to own it. That has been cleared up to a great extent.

Senator SCHMITT. In this committee we refer to 20-foot Russians, not 10-foot Poles. [Laughter.]

Chairman ROTH. Dr. Russell, I appreciate very much your being here. I think the testimony of people such as yourself who have had a background and experience in dealing with the Government in this important area is extraordinarily helpful.

Thank you, very much.

Mr. **Russell.** Thank you.

Chairman **Roth.** At this time, I will turn the chair over to Jack Schmitt, who as I said earlier, is particularly competent to hold these hearings because of his own personal background and experience in the realm of research and development.

Senator Schmitt?

OPENING STATEMENT OF SENATOR SCHMITT

Senator **Schmitt** [presiding]. Thank you, Mr. Chairman. As you leave us, I want to thank you for this opportunity to focus on the impact of S. 2562 and particularly its impact on the national laboratories and university-based energy research and development organizations.

I want to join with the chairman also in welcoming this distinguished panel of witnesses that we have with us this morning.

As one who opposed the creation of the present Department of Energy and as one who supports the restructuring of the Department of Energy along the lines of S. 2562, I am greatly interested in the views of people who actually do the research and development work under the present regime. I think there are some necessary changes in the administration's proposals and you will have a great deal to do with recommending those changes.

To a large degree the debate, discussions and hearings concerning S. 2562 have focused on the so-called political aspects, which committee will have what power over which proposed new assistant, associate or deputy secretary. As the Wall Street Journal, June 28, noted, "Everyone wants to create programs, agencies, departments, jobs, desks, budgets, expense accounts, and perks. Nobody wants to do away with anything."

I would like to have the full article reprinted at the end of my statement and without objection, that will be done.

This proposal before us today recognizes that the breadth of the tasks requested of DOE and the specific nature of several functions, like "Energy Supply Management", and "Resource Allocation" made failure impossible to avoid even if a top-heavy management structure had not been in place. In general, this bill reflects the appropriate role for the Federal Government in energy: High-risk, long-term research, and development of domestic energy supplies when costs and risks preclude private enterprise involvement at the level required in the national interests basically, establishing a research and technology base on which the entire Nation can stand, public and private, in order to develop the mix of energy sources and energy supplies necessary for our future well-being and that literally of the free world.

The energy policy being pursued by the administration and S. 2562 are based upon the sound premise of using the free market system as its cornerstone. The Federal Government has valid and substantial responsibilities with respect to energy and S. 2562 should improve the way the Federal Government performs its role by separating regulation from research and development.

I can't emphasize or underline or italicize the need to separate regulation from research and development management any more than is humanly possible. That has been the problem in this agency. It has been the problem in other agencies. The problem basically is that management attention is dominated by the regulatory, the day-to-day regulatory demands, and attention is diverted away from necessary long-term research and development.

Both tend to be necessary to some degree, regulation is necessary, but they should not be combined in any one agency or department.

The success of the aeronautical research, cooperative research programs of this country are a testimony to the value of separating research and development from regulations of a particular area of technology.

It is important to note the large so-called weapons labs, Lawrence Livermore, Sandia, Los Alamos, are also heavily involved in energy research. The institutional mechanism to effectively meet our Nation's long-term energy and weapons research and development problems must allow continuation of the valuable exchange of knowledge between energy and weapons programs that takes place under the present system.

It is crucial that the national laboratories and the research facilities at different universities do not simply survive this restructuring but that this synergistic relationship between necessary defense research and development continue.

We must find a structure that will actively enhance their tremendous overall capabilities. I believe that that structure can be found for the Federal Government in energy. We must continue to recognize how critical this laboratory structure is. It is not only the basis of our national security, but it is one of the bases, one of the bases for the future development of inexhaustible energy supplies that will free us and the free world from excessive dependence on resources derived from unstable or threatened international sources.

[The Wall Street Journal article follows:]

[From the Wall Street Journal, June 28, 1982]

GOVERNMENTAL AFFAIRS

The Senate Governmental Affairs Committee has lately been giving us a civics lesson on why the United States Government has become so overblown and unmanageable. It's because everyone wants to create programs, agencies, departments, jobs, desks, budgets, expense accounts, perks. Nobody wants to do away with anything.

At issue before the Senate body is the Reagan administration's proposal to do away with the Department of Energy. To hear some of the complaints coming from such luminaries as Senators Eagleton, Percy and Jackson, you would think the administration was proposing the abolition of energy itself.

The DOE had its origins in a brainstorm by President Nixon at a cabinet meeting where then-Deputy Secretary of Treasury William Simon made a particularly impressive presentation on the energy problem. The fact that the energy problem had in large part been created by Mr. Nixon himself when he installed price controls in August 1971 seemed to have escaped most of the assembled officers of government. Mr. Simon got the job of "energy czar" and Mr. Nixon scored a small political victory by demonstrating once again that he could act in an "emergency."

As the energy office grew into a full-scale department of government, the energy problem got worse, not better. Government agencies with no problems to solve are like ships without water. But problems could always be created in energy by more pervasive government intervention in the markets.

The voters finally caught onto this game and elected Ronald Reagan to get government out of the way of the energy business. Sure enough the problems began to evaporate into thin air. What didn't evaporate were the residues of this exercise in government building, like Synfuels Corp., "renewable" fuels subsidies, etc.

The Reagan administration wants to spread the DOE's tasks hither and yon, letting the Pentagon manage nuclear weapons development, for example. Huge savings aren't promised, but at least this would have political symbolism—a promise to the voters that Washington would not repeat in the 1980s all the market interference and limits-to-growth propaganda it indulged in in the 1970s.

The Government Operations Committee, although now dominated by senators who belong to the same party as Mr. Reagan, is kicking and screaming. Senator Percy wants assurance that our debt-ridden government can continue spending money on energy "research" that could easily be left to industry. Senator Eagleton thinks there still is an energy "sword of Damocles" hanging over our heads, despite widespread assurances that Richard Nixon will never return to office.

And so it goes. The Department of Energy, which never should have been created, cannot be easily killed. "Constituents" who gain grants and contracts from it are fighting for it. So are its employees. And senators will help them even if it means ignoring an urgent need to cut federal spending. That's the civics lesson for the day.

Senator SCHMITT. With that, I would ask our next witness—I wonder if we could have all three of the next witnesses come up as a panel? Would that be OK? Dr. Trivelpiece, Director, Office of Energy Research, of the Department of Energy. Doctor, welcome. Dr. George C. Dacey, president of the Sandia National Laboratory in Albuquerque, N. Mex.; and Dr. Robert N. Thorn, deputy director, Los Alamos National Laboratory, Los Alamos, N. Mex.

Gentlemen, I have not had, personally, a chance to review your testimony. If it is possible to summarize, I am sure that we would appreciate that and we will have your entire statements included in the record as if read.

Dr. Trivelpiece, if you will permit me, because of other demands on my time that may come up in the not too distant future this morning, I wonder if I could ask Dr. Dacey to proceed first and then Dr. Thorn, and then we will take your testimony. Does your schedule permit that to happen?

Mr. TRIVELPIECE. Certainly.

TESTIMONY OF GEORGE C. DACEY, PRESIDENT, SANDIA NATIONAL LABORATORY, ALBUQUERQUE, N. MEX.; ROBERT N. THORN, DEPUTY DIRECTOR, LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, N. MEX.; AND ALVIN W. TRIVELPIECE, DIRECTOR, OFFICE OF ENERGY RESEARCH, DEPARTMENT OF ENERGY

Mr. DACEY. Thank you, Senator Schmitt, members of the committee.

I have entered into the record a written statement.

In the interest of time, perhaps I should just paraphrase it.

I know that you, Senator, are thoroughly familiar with Sandia Laboratories, but since other members of the committee may not be, perhaps I should start by indicating what Sandia's role is because it is somewhat different from the other national laboratories.

Sandia has been operated since 1949 by the Bell System under a no-profit, no-fee contract. It is primarily an engineering laboratory as contrasted with the other pure science laboratories and is involved in nuclear weapon engineering for those parts of the weapons which are not specifically nuclear.

As you pointed out a moment ago, we also are involved in a number of other activities which the scientific capabilities, required for the weapons program, enable us to do well. We are working on nuclear safety and safeguards, fuel cycle protection, energy developments of various kinds, as well as weapons. It is the synergistic relationship among our multiprogram capabilities, I think, which needs to be preserved, as you, yourself, pointed out.

Senator SCHMITT. If I could interrupt at that point, is there also a second area, albeit important role that this defense research plays; that is, it provides strategic research capability within the institution in case certain national security interests suddenly require a buildup of activity?

Mr. DACEY. Yes. I believe that to be the case. If you were to review the history of Sandia's activities over the past decade, you would find that there has been a shift from weapon work into energy work and more recently back into weapon work. Preserving that flexibility and capability for needs as they arise, I think, is very important and needs to be considered nationally.

Senator SCHMITT. That does put some civilian programs at risk, however, does it not, in terms of the available personnel and knowledge to pursue those programs?

Mr. DACEY. It is certainly true, as I think earlier speakers have pointed out, that to maintain a good scientific program requires continuity—continuity of funding and continuity of planning. If major changes of either funding or policy take place, it is very difficult for laboratories to adjust to them. One of the reasons that this legislation is very important, is that we need to get these issues settled, with a management structure in place, so that we can continue to do the job with full Government support.

Uncertainty is probably more serious than the details of the organization itself.

Having said that, I would like to go on and make one or two points about it. Obviously we are asked to comment on how the laboratories will fare under the proposed reorganization. As you know, of course, the reorganization has not been finalized, and changes could still occur. Furthermore, the positions that would be created are not yet filled. We don't know who the individuals are who will be doing those things. I think getting the proper organization in place and staffed with good people is terribly important.

But I would like to mention several issues that I feel should be considered in structuring that legislation. First, I think it is extremely important that we maintain the present division of responsibility as far as nuclear weapons are concerned. Since the beginning of the Atomic Energy Act there has been a separation between the nuclear weapons program, which is now in the Department of Energy, and the other parts of the defense program, which are in the Department of Defense. I believe that one gets more reliable, more effective safety, and command and control procedures if that check and balance is preserved and, I think any legislation ought to preserve that dual-agency responsibility.

Second, speaking for a multiprogram laboratory, I think it is very important that the National Laboratories remain multiprogram facilities so that, as you Senator, pointed out a moment ago, these synergistic effects between technology development in the weapons program and the use of those technologies in other programs such as the energy programs can be maintained. I think that having the energy and weapons parts of the DOE remain together in whatever new structure emerges is very important.

Senator SCHMITT. In that regard, we, of course, are talking about an energy restructuring here, but there is a tremendous potential for these technologies to spin off in the other fields, which is also preserved by that kind of relationship. You and I know very well the development of the artificial pancreas in cooperation between Sandia and the University of New Mexico, a development in conjunction with other developments around the country that offers tremendous possibility to the health and welfare of diabetics in this country and elsewhere in the world. So although we are focusing on energy, I think it is a good idea not to forget that there is a tremendous future potential as well as current potential for the spinoff of weapons-related technologies, literally. That is what that specific case, into other areas of private activity.

Mr. DACEY. Yes. I think that is one of the features that a multiprogram laboratory has to offer society. In order to do our prime nuclear weapon engineering mission, many disciplines are simultaneously required. It is inevitable that side benefits will arise and when they do, it is important that they be made available for use by the private sector and by society in general.

A third point I would like to make is that in my opinion, the R&D goals of the national laboratories have been achieved very effectively over the years in part because they have been managed in the field. There is a relatively small central staff in Washington that establishes overall policy and determines what work should be done, however, the responsibility for how the work should be done and for doing it efficiently is left to the field offices and to the national laboratories. I believe this is a very effective operational procedure and I strongly recommend that the proposed organization, that this bill addresses should be structured to assure that this type of management is not only continued but extended further to the nonweapons programs.

Finally, I would like to say that I hope any reorganization proposal recognizes, as this current one does, the tremendous value of the national asset that is represented by the national laboratories, such as Sandia, Los Alamos, and others with their almost unique technical depth and research capabilities.

I would like to say it is a shame, but I personally believe it is true, that many of our historically excellent R&D institutions in the private sector are moving somewhat away from basic research having become more product-oriented with short-range objectives. I hope the Nation will continue to cherish and preserve those institutions which, like us and others, maintain a broad spectrum of research and development and are truly multiprogram in nature, for I think that is one of the best ways we have of assuring the kinds of spinoff that you were discussing.

Senator SCHMITT. Thank you, Dr. Dacey.

Dr. Thorn?

Mr. THORN. Thank you, Senator Schmitt.

I will also make a few points from the prepared statement that I have.

First of all, I would like to apologize for Dr. Kerr, who was unavailable to be here. He is the chairman of the Committee on

Energy, Research and Development of the International Energy Agency, which is part of the Organization of Economic Cooperation and Development, and is attending a meeting, chairing it, and it is something of longstanding commitment. He could not be here.

Senator **Schmitt**. I wish to welcome my distinguished current colleague and former colleague, Senator Glenn, with us this morning. In a few moments I am going to relinquish the chair to him so I can go back and try to defend our national interest in the Defense Appropriation Subcommittee.

We will try to get everybody's testimony on the record and we may be submitting questions for the record to all of you.

Please proceed.

Mr. **Thorn**. It is clear that the reorganization will have some impact on us, but we do not think that enough is known for us yet to make any specific statements. I would like to say, however, that we have lived under four previous organizations: The Corps of Engineers under the Army, the AEC and the ERDA and now the DOE and as long as the basic integrity of the programs is preserved, I think we will live under a future organization. I would like to make some points, though. I think that the organization should have continuity in order to preserve the capabilities that we have in the national laboratories.

First of all, I think it is very important that the laboratories continue to have the diversity in the programs assigned to them. Even though we have 55 percent of our work in defense-related matters, the other 45 percent in energy-related research is very important to preserve the capabilities of the technical staff. I think if we were a single-purpose nuclear weapons laboratory, we would have a hard time attracting scientists that we need for the many difficult challenging assignments.

If we keep anybody on any one task too long, we will become stale. We deal with this by making shifts to new fields available. The diversity is very important in recruiting new scientists and that is what we need at the national laboratories.

Another point is that we think the multiprogram labs have done a critical service for the Federal Government and have performed this function very well. That record of performance merits continued support.

The third point is that weapons laboratories have been managed in a fashion that has been very productive and that pattern should be continued. A key to this has been the fact that large field operations have been governed by a small headquarters staff. We feel that should be a part of any future reorganization.

Fourth, it is very important that basic research be reemphasized. In the past few years immediate needs have been pressed too hard in some cases. This has been to the detriment of longer term efforts that may yield significant benefits to the Nation. If all efforts are based on short-term, then new ideas will suffer from lack of investment. The Nation just cannot afford to have this occur.

Unless there is some portion of the program that allows scientists to follow important new leads without immediate relationship to existing programs, the labs will lose their best scientists. That will have an even further negative impact on the quality of work that flows from the labs.

I think those are all the main points that I wished to make at this time. I will be happy to answer any questions.

Senator SCHMITT. Thank you, Dr. Thorn.

Has the laboratory evaluated the potential effect on their current activities of having appropriations proceed at the 1982 level under a continuing resolution?

Mr. THORN. Yes, indeed, we have. We have taken many steps already to anticipate what would occur under those circumstances.

Our financial problems under the President's budget request would be about a $30 million shortfall, if we did nothing to reduce that shortfall. Because their is not yet enactment of appropriations bills, we have been unable to take most actions. We know what the President's request is for our individual programs. However, Congress has not exercised its role in the budget process to tell us in detail what programs are going to be funded or at what level they are going to be funded so we have been unable to take most actions. It would not be good to have reduction in one program based upon the President's budget and then find out later that we have to rehire those people and RIF some others in another program, based upon the final bill.

The factor of a continuing resolution, of course, depends upon how long the continuing resolution is in effect. If it is in effect for the whole year, that has much greater impact on us than one that lasts only a few months.

So the uncertainty of how long it lasts is going to have a great deal of effect.

The main effect it has is that it defers actions on any employment reductions that we have to make until we know exactly what the full year appropriations bill is.

Senator SCHMITT. What if you were held at the 1982 levels?

Mr. THORN. If we are held at the 1982 levels then during the continuing resolution we can take measures which will allow us to get by without any employment reduction. However, the longer this happens, when we finally do get a bill, we will probably have to reduce our unemployment further than we would expect to do under the total in the President's budget.

Senator SCHMITT. Dr. Dacey, is that comparable at Sandia?

Mr. DACEY. It may be somewhat worse at Sandia because an even larger proportion of our budget is in the weapons program. Our weapons and weapons-related work is something like 80 percent of our budget, rather than 55 percent. It is true that in 1983 we expect to increase the weapons program under the President's request; however, if we are held at the 1982 levels, it will be primarily the weapons part of our program that will suffer. Our costs anticipated in 1983 are higher for two reasons: One, because we are asked to do more; and second, because of inflation. Thus, 1982 levels would primarily impact the weapons program. Clearly we would try to avoid any reductions in force because we want to keep the staff intact. We will do everything else first. We probably couldn't manage to keep the staff intact if the continuing resolution lasted throughout the year, but for a couple of months we could probably accommodate, as our friends from Los Alamos have just testified.

One of the more serious impacts of a continuing resolution—which actually occurred last year—is that we would have to suspend hiring. This would make it the second year in a row. This is very bad because new blood, more recently trained people, new Ph. D's, and new viewpoints are terribly important to the health of our enterprise. To remain stable and not be able to add new blood as older people retire is a very, very serious matter. So I think that getting a budget that we can count on, so that we can plan a hiring program and plan our work programs in detail is very important to us.

Senator SCHMITT. Thank you, gentlemen. We will do our best to get the bill out and signed into law. If that is not possible, we will have the shortest continuing resolution in history. It is terribly disruptive of not only these national activities but many others, and this Congress just must come to grips with this problem of spending the first 7 months of every year worrying about budget resolutions and not having time to work with the real money appropriations bills. When we will decide as an institution to tackle that problem, I don't know. But we must because there is a cumulative effect here. Every year that we do this makes the next year's problems that much worse in personnel, in pursuing programs with some kind of continuity, and in actually serving the national interests as well as the energy interests of this Nation.

Dr. Trivelpiece, would you proceed, please, and I will turn the gavel over to Senator Glenn. He may have a statement that he wishes to make.

OPENING STATEMENT OF SENATOR GLENN

Senator GLENN [presiding]. I think the problem that we are up against with our national labs and with our research effort in this country is far, far more basic than just the DOE reorganization proposal. The problem is that for the estimated outlays for fiscal year 1982 and fiscal year 1983, the administration has cut back 23 percent on our support for the national nonweapon labs. with an overall cut of 14 percent when the weapons labs are included. So a reorganization is not the problem; if we have already chopped funding and are continuing that chop under the new reorganization. I have been appalled at the cutbacks in national labs and our Federal research efforts and at the view of the administration that if research is worth doing, private industry will do it. This is basically what David Stockman has testified sitting at the same table you gentlemen are sitting at right now. It is just poppycock to me, because I have been on boards of directors in this country. It is a 3- to 5-year bottom line payoff they are looking for. Rarely do companies get beyond that in their research unless they are Bell labs, Monsanto, or du Pont or one of the few other companies that do this kind of basic research. I was just leafing through Dr. Trivelpiece's statement here and you focused on basic research. That is what I am concerned about. That is where the Japanese, Germans, French, and others are beginning to outcompete us in certain fields. Instead of pressing forward, instead of saying Americans can outdo, outresearch, out produce anybody in this world, instead of getting in there and competing, we are cutting back on our national lab system to the benefit of our competition in the rest of the free world. Instead of increasing our efforts in these areas, we are laying down.

I was at one of our national labs last fall. They were having a meeting the day I was there to see who was going to be terminated and laid off. I was deeply disturbed by this. Basic research has been the hallmark of this country. We put more into it than any other nation. We learned these things ahead of other people. Then free enterprise could take over to commercialize the new discoveries. With our educated people we went ahead and outdid the rest of the world. They were following in our wake, picking up the pieces, being the "Xerox societies." If we lay down this preeminence that we have in research, basic research, if we lay that lead down, we ought to have our collective tails kicked right up between our shoulder blades because we are just laying down what has made this country great: our leadership position in the world. I didn't mean to make a whole speech here, but this is so critical right now.

As to reorganizing DOE, I would rather not reorganize; I think DOE performs a very valuable function. DOE let us pull all of these energy related programs together. But the problem of basic research is far more fundamental than whether we reorganize or not. If the money isn't there for basic research, it isn't going to make any difference whether we have it reorganized or not. It is appalling to me that the administration would want to cut back on these areas.

Another point is what David Stockman said here a little while back. He was saying that if we have a better budgetary situation next year, we can put the money back in. But this comment showed a fundamental lack of appreciation and knowledge of how our research system works in this country. I couldn't believe it. You have got labs that took decades to put together, and you can't stop them and start them from one year to the next.

Senator **SCHMITT**. If the Senator would yield, I wish it were just a problem with the current budget. This is something that has gone on for 10 years. We had basic cutbacks, reduction in incentive for the private sector to invest in basic research, a reduction in the Federal role of dollar commitments to these areas where it should be involved. Sometimes it has gotten involved where it should not have been involved. The net result is, as the Senator pointed out, the basic research base, the basic technology base of this country has eroded. At least it hasn't been rejuvenated at nearly the rate it is required for national growth.

The Senator makes an extremely valuable point.

Senator **GLENN**. Here is a rundown my staff did on energy research and development, fiscal budgetary authority in millions of current dollars. I would like to have this submitted in the record for the committee.[1]

Senator **SCHMITT**. Last year the Carter administration—we have the lists of things down here, what was proposed, then we have coming out to what is now proposed in 1983. Conservation research, it has been cut by 94 percent, solar and renewables, cut by 90 percent; fossil research, by 90 percent; energy storage, totaled out, 100-

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[1] See p. 181.

percent reduction, no more in that area; electric energy systems, cut by 100 percent, magnetic fusion is up 13 percent, nuclear fission is cut 7 percent.

It is going to be academic whether we reorganize or not reorganize if that is the kind of support we are going to have for research in this country. You know as well as I do, everybody in the room knows, that the private industry is not going to make up that kind of difference in the basic research areas in particular. It just isn't going to happen.

Doctor, go ahead.

Mr. TRIVELPIECE. Thank you, Senator Glenn. I am certainly not going to argue against basic research and its support. I didn't assume you thought I was. I would like to have my prepared statement submitted for the record.

Senator GLENN. It will be admitted in the record in full.

Mr. TRIVELPIECE. This contains primarily factual and background information on the subject of reorganization and matters related to the labs. It doesn't break any new ground that is unfamiliar to you. As you know, I am Director of Energy Research and one of the responsibilities associated with that job has to do with the health and well-being of the national laboratories. It is a statutory aspect of the job. It pertains to the nonweapons laboratories and multiprogram laboratories. In addition I have the prime responsibility for the magnetic fusion program, the high energy physics program, a program called basic energy sciences, as well as the collection of programs that are known as biology and environmental research and life sciences and nuclear medicine applications. I have worked at Lawrence Livermore National Laboratory during the time I was on the faculty at Berkeley and I have been involved with activities at the national labs for a period of over 20 years. I was involved in the research program at the AEC from 1972 to 1975. From the vantage point of that background and experience with DOE's predecessor organizations, I believe the proposed reorganization, should not in any way negatively impact the collection of programs or the multiprogram laboratories that I am responsible for.

With respect to the weapons laboratories which were already discussed with Mr. Dacey and with the Assistant Secretary for Defense Programs, the object of the reorganization from the administration's point of view, of course, is to try to accomplish that transition in a mode which produces no harm to those entities which are multiprogram, or single-purpose laboratories.

I think from our point of view we have to assume that it is possible to accomplish that and it will happen. I certainly agree with the other speakers who have spoken with respect to the laboratories being valuable national assets. They certainly are. They do need to be guided in such a way that it maximizes the benefits that can be attained from their efforts. Of course, the list of accomplishments of the national laboratories is impressive and ranges from the weapons programs, to the entire nuclear industry, to one that I think is probably the most impressive of all—the whole life sciences and nuclear medicine area.

There are approximately 70 million nuclear medicine applications that are applied to approximately 40 million patients in the United States. That is a multibillion dollar industry that evolved from the programs that had their origins in the Atomic Energy Commission.

I would like to continue by saying I think it is necessary to look beyond any transient disruptions that might occur as the result of any reorganization and ask what benefits could accrue.

Certainly it is true, as you pointed out, that the United States is perhaps not competing as well in the international science and technology arena as it might. And certainly, the transfer of activities in the laboratories to the Department of Commerce, would not offer any panacea in terms of trying to help solve that problem. It certainly would provide a different emphasis; and I think cause people in the laboratories and in the Department of Commerce to pay more attention to the possible opportunities that the laboratories will provide.

I think the laboratories do need to try to improve their ties with industry and with the universities. It is my opinion that in the past some of the labs have been a bit insular and have not had the kind of interaction with industries and universities that they should have. I think that has been changing at an increasing pace in the past few years, and the direction of that change would be consistent in my view with a move to Commerce. This would permit a greater involvement and an ability to accomplish technology transfer in a more effective way. Because technology transfer really seems to take place best under circumstances in which there are connections between human beings, that technology transfer occurs when an individual tells another individual how to go about doing something and he goes away with it. To some extent the paper aspects of it, I believe, are not as important as that element of human contact.

Senator **Glenn**. Why do you feel it would do better at Commerce than DOE? I don't understand. Why would that make a better relationship?

Mr. **Trivelpiece**. There were attempts in the past by people who were in Commerce and I think the office is the Assistant Secretary for Science and Technology at Commerce who were trying to take positive advantage of some of the activities that were going on in the laboratories and to improve contacts with industry.

The fact that these were two separate agencies made that difficult to carry out. I believe the boundary that now exists between them, being separate agencies, would be reduced. You are absolutely right, however. There is no reason that that could not be done now. It would take a certain determination to do it, and willingness on the part of the individuals who carry it out. There just hasn't been the incentive, I believe, to do it until recently.

In summary, I believe that the reorganization into the Department of Commerce would not in any material or obvious way harm the laboratories. In fact there are certain potential benefits that might occur. It is right to be concerned and to pay attention to see to it that some organizational anomaly does not occur which makes it difficult to carry out business; but as Dr. Thorn has said, certainly the laboratories are durable.

If you think about it, in fact, the laboratories preceded the AEC to some extent with their involvement with the Army for example. The Lawrence-Berkeley Laboratory celebrated its 50th anniversary last year. Certainly the transition from the Army to the AEC to the ERDA to the Department of Energy supports the belief that they are quite durable entities and I believe they will survive.

The question is, How well will they survive and will they survive in a manner that takes best advantage of them?

The arrangements as outlined in the legislation, I think, are workable; assuming sound individuals in key management positions. To some extent this kind of an executive reorganization I believe is a Presidential prerogative. Certainly there are enough checks and balances in the system and if the system doesn't work in the manner that meets with your approval, I am sure you will let the President know at some subsequent time.

Thank you, Mr. Chairman.

Senator **Glenn**. Thank you, very much.

Dr. Dacey and Dr. Thorn, you are basically involved with Los Alamos and Sandia but I am sure you have a lot of cross pollenization back and forth from other labs which are perhaps more multidisciplinary labs, a little more maybe than your own spots would be.

What are your comments on all of these cutbacks in very basic research that the other labs are experiencing?

Would you comment on that? We are cutting back 14 percent this year on overall general funding.

Isn't that affecting our basic research in this country?

Mr. **Thorn**. If I may, I will answer that for Los Alamos and I believe for the rest of them. We view the dismay, as I said in my prepared statement that basic research is being cut back in the country and we think it is time that it should be reemphasized.

Los Alamos we feel that without basic research, the opportunity to spend money on things where there is no immediate payoff that we cannot attract the kind of people that we need to attract for the long-term benefit of the laboratory.

It may be good in the short term, you can apply more people to what you are going to do for the needs of today. But it is cutting off the mother's milk of requirements for the future by cutting back on that.

Mr. **Dacey**. I would like to add to that, Senator.

I think that the industrial superiority this Nation has enjoyed, as you pointed out, has drawn from a base of technology that was created over many years. Since the war, a great part of that base was sparked by government not just in the national laboratories, but in universities and in industry and the military. The spinoff from those programs, I think, has enriched our society. There is a great deal of discussion these days about why is it that other societies, the Japanese or the Germans, seem to be innovating at a greater rate than we do. There can be no doubt that if we don't invest in basic research we won't realize its fruits. Hence in terms of research, I think additional investment will pay off. I understand that our Nation is not infinitely rich and that we have to balance the budget as a matter of priorities, but personally, being a scientist, I think that we are perhaps not putting our priorities in the right order if we cut back on the future of knowledge.

Senator **Glenn**. Figures come to mind and I would have to double check these, but we have cut back on our research and development expenditures as a percent of GNP by 21 percent over a 16-year period.

During that same period, the Germans have gone up, they have increased theirs by 41 percent and the Japanese have increased theirs by 27 percent, I believe were the figures. That is applied against a different GNP, obviously.

We still have more going into research overall but about 50 percent of our research dollars are defense oriented, some of which comes back in civilian applications later on, but the Japanese in particular, target their research efforts much more than we do. So they get back a bigger bang for the yen or bigger bang for the buck than we do in our country in the way they target theirs into what look to be industries of the future.

Dr. Trivelpiece, do you agree with those budget cutbacks that I mentioned a moment ago in these areas of energy research that are so important to us?

Mr. TRIVELPIECE. Before I comment, those are activities that are outside of my area of responsibility. They are under the Assistant Secretary of Conservation and Renewable Energy.

I am not sure that all of those cutbacks that you are referring to are in the category of basic research. A good fraction of those, I think, were near-term applied technology demonstration activities.

Senator GLENN. They were both. If I referred to them as basic, I would correct that for the record. Some are basic research and some are activities with more near-term applications. I agree.

Mr. TRIVELPIECE. To the extent that I have been able to do so including the departmental budget discussions, I have tried to argue in favor of the basic research end of the spectrum of those activities that you were referring to.

Certainly the Department in other areas has increased its basic research studies in high energy physics and nuclear physics and basic energy sciences; that part that I am responsible for as Director of Energy Research.

Senator GLENN. I mentioned a little while ago the administration's view that if we cut funding this year we can still fund these activities next year if we want to, or the year after that.

Once you have cut your budget back in some of these basic research areas, how long does it take to get going again? I know there is no one answer to that. But could you comment in general on it?

Mr. TRIVELPIECE. It takes years to assemble research teams. I did it at two universities. By the time you recruit graduate students, see them through their years of academic studies, their research programs, get them involved, it would be a 5- to 10-year project to assemble a team. It takes literally only 1 year to disassemble it.

Senator GLENN. Would you agree, I used the general figures that we have been using for some time here, the last year's budget in the basic research area was cut back about 20 percent, about another 17 percent this year.

Would you agree with that approximate——

Mr. TRIVELPIECE. That is certainly the impact of the average reduction in program activities at the laboratories but that is programmatically not across the board. There is not a 17-percent cut in all programs managed by the laboratory at all the multiprogram laboratories.

There has been a substantial reduction in some programs and no reduction or even some growth in others. But that number is approximately correct on the averages.

Senator GLENN. Do you think it is realistic to cut back by that amount in a time when we are being outcompeted by people in other parts of the world or beginning to be in certain areas?

How do we justify that kind of a cutback?

Mr. TRIVELPIECE. The cuts were in specific areas that were presumably short-range technology demonstration activities. The basic research areas and in some cases within solar and fossil programs, basic programs were retained, not all but a good number of them.

Senator GLENN. The cuts were not in basic research areas, but in shorter term applied technology areas?

Mr. TRIVELPIECE. That is my opinion, that most of them were short-term technology demonstrations.

Senator GLENN. We all have multiple commitments here this morning, unfortunately. Let me ask one other question of the other gentleman.

Dr. Thorn, Dr. Dacey here, have you looked at some of these research areas, conservation, solar, fossil?

I know you are not primarily involved in those areas in your own laboratories. You are to some extent when you get into the fusion, fission, things like that. But could you look at this generally across the board cut that we have made and what is your opinion of the type of cuts in research that we are making in these energy fields now?

Mr. DACEY. We are involved in all of those programs to some extent. I think that some of the cuts that we have in fact made are appropriate because in some instances, as Dr. Trivelpiece pointed out, the cuts were in programs that were rather nearer to demonstrations than to basic research.

My concern is that those cutbacks were not matched by increases in basic science and therefore the result was a reduction of the personnel who were addressing energy programs in general.

It is true, as we said earlier, that weapons program increased at the same time so most of these personnel weren't lost to the national laboratories. But, it is my personal opinion that energy, in spite of the fact that the gaslines aren't with us today, remains a very important topic for future research. Cutbacks were not in programs which were basic research but they weren't matched by increases in basic research either.

Mr. THORN. We are not enough involved in solar, although we are the lead laboratory in passive solar, but it is a very small effort at Los Alamos.

We are involved in a hot rock program which is we are trying to see if you can successfully and economically extract heat from rock below the surface. That has been some problem getting or at least to accomplish the demonstration that is scientifically feasible.

We are heavily involved in nuclear programs, both fission and fusion. Those programs have fared relatively well under the budget exercises of the last few years and we have not suffered any big cuts there except in the isotope separation program where we will go to zero next year.

Senator GLENN. The magnetic fusion and nuclear fission are the only two areas that remain virtually unscathed. Fission went down 7 percent, fusion went up 13 percent, but all the rest of these programs were either terminated or cut by 90 percent or over: solar, fossil, energy storage, electric energy systems, conservation, solar and energy conservation banks.

Have you had to actually terminate any programs because of budget cuts at your lab?

Mr. THORN. We had to terminate the isotope separation program in 1983.

Mr. DACEY. We have cut back our nonweapon energy work from a peak of 920 people to 650 people.

Senator GLENN. You had to cut your programs in half, your nonnuclear programs?

Mr. DACEY. Nonnuclear.

Senator GLENN. How much of this was basic research?

Mr. DACEY. Very little.

Senator GLENN. Most of it shorter term?

Mr. DACEY. Yes.

Mr. TRIVELPIECE. I would like to add one last thing.

The university programs were not reduced by a similar amount in the Department of Energy. The 17-percent reduction you are referring to was for the multiprogram laboratories. The reduction in support for research at universities was less than 10 percent in the aggregate.

Senator GLENN. I know we came to talk mainly about the area of reorganization. To me it is far more fundamental than just reorganization. I will vote against reorganization if it comes to a vote because I think we did the right thing to assemble all of these different programs that were previously spread throughout Government and put them in one department. Just because there has been some criticism of DOE, I don't think that we should now disburse them again.

I just don't see where we are going to save much. It seems to me we have them assembled basically in one organization. We should and can make that organization work better if that is the problem, not just disperse these programs again or put them over in Commerce or wherever.

I think the problem with our research effort is far more basic than how we organize it. It isn't going to make any difference whether it is reorganized in the Department of Commerce or someplace else if there isn't the proper funding for it to begin with.

That is the reason I made the remarks I did about the continuing resolution. A continuing resolution on zero doesn't leave you much better off, before or after. I know that is an extreme statement. We are not quite that bad off yet, but we are not doing what I think we should be doing in these areas.

I would say this: I am not one who thinks we should turn everything over to research, but at the levels that we have been cutting back to recently, we seem to be eating our seed corn for the future, if you will.

I think we are cutting back far, far too much at a time when we are beginning to be outcompeted by other nations in certain specified areas. These areas will expand as time goes on because these other countries are putting far more effort into R&D than we are.

Gentlemen, I do have to go to another hearing. I appreciate this.

[The prepared statements of Messrs. Dacey, Thorn, and Trivelpiece follow:]

STATEMENT OF DR. GEORGE C. DACEY
PRESIDENT, SANDIA NATIONAL LABORATORIES
TO THE COMMITTEE ON GOVERNMENTAL AFFAIRS
UNITED STATES SENATE
SEPTEMBER 21, 1982

Mr. Chairman and Members of the Committee:

I am pleased to testify this morning on the subject of the Federal Energy Reorganization Act of 1982. This is a very important Act, and one worthy of serious consideration by your Committee.

For those of you who are not intimately acquainted with Sandia National Laboratories, let me begin by providing some background information on our Laboratories operation.

Sandia is one of the multiprogram laboratories of the Department of Energy (DOE). Since 1949, it has been operated by the Bell System under a no-profit, no-fee contract with the Western Electric Company. It is primarily a nuclear weapon engineering laboratory with a broad multidiscipline scientific base and a diverse capability in many areas. At its two major facilities in Albuquerque, New Mexico, and Livermore, California, Sandia employs 7900 employees, 2500 of whom are professional/technical staff with nearly 40 percent holding PhDs. Our total FY 1982 budget is about $700M. During its 30-year history, Sandia has become known as a laboratory that can take projects from problem definition through research and development to hardware production. Its engineering and scientific capabilities are now being applied to meet urgent national needs for nuclear safety and safeguards, fuel-cycle protection, and energy development as well as weapons. Our expertise spans the range from basic research in a variety of physical and engineering sciences, through development and design stages, into manufacturing liaison, and finally into stockpile management and field engineering.

Sandia's major role is that of a systems engineering laboratory with responsibility for the nonnuclear portions of nuclear weapons. However, Sandia's experience with safety, security and control of nuclear weapons, weapons effects, and surface and satellite systems is now being applied to fields such as controlled magnetic and inertial-confinement fusion, reactor safety, nuclear waste management, and fuel-cycle and materials safeguards. In addition, about 20 percent of the extensive engineering and scientific capabilities of the Laboratories is also being directed towards the execution of a broad spectrum of nonnuclear energy programs, such as solar energy, and fossil fuel extraction, conversion, and combustion. The synergistic effect of this mix of weapons and energy research and development is of great value.

In support of these energy and weapons projects, Sandia maintains large modern scientific laboratories and comprehensive test facilities. We have capabilities and facilities for research in the areas of solid-state physics, plasma and electron-beam physics, materials characterization, modern silicon and hybrid processing, reactor safety, lasers and aerodynamics.

Your invitation requested that I comment on how the Laboratories will fare under the proposed reorganization. A precise answer would be somewhat premature, because, as you know, the reorganization has not been finalized, dramatic changes could still occur and last, and perhaps most important, key and top level positions have not yet been filled. It is axiomatic that the effectiveness of any organization is extremely dependent upon both the personality and philosophy of its leadership. Nevertheless, from what we currently know of the proposed reorganization, we expect to fare all right. I would, however, like to discuss what I believe to be several important issues.

First, I believe it is extremely important to maintain the current division of responsibility between the civilian and military sectors regarding nuclear weapon programs. Because of this division of responsibility and the resultant healthy debates concerning trade-offs and requirements that occur, I believe our nuclear weapons are safer, more reliable and effective, and have better command and control features. I note that the proposed reorganization maintains this division of responsibility and I think that is very important.

Second, Sandia National Laboratories is a multiprogram laboratory. I believe it is very important that we remain a multiprogram laboratory with our principle mission being nuclear weapon engineering combined with a smaller but significant effort in nonweapons energy R&D. We have seen that the synergistic effects between these two activities has been healthy for the Laboratories and beneficial to both programs. I therefore believe it to be very important in the proposed organization that the Deputy Secretaries for Defense and Energy work closely together to allow this multiprogram effort to continue.

Third, I believe that the nuclear weapons program has historically been successful in achieving its R&D goals in an efficient and effective manner because it is largely managed in the field. There is a relatively small central staff in Washington that establishes overall policy and goals, i.e., determining what work should be done; however, the responsibility for how it should be done and doing it efficiently is left to the field offices and the Laboratories. I believe this is a highly effective operational procedure and strongly recommend that the proposed organization be structured to assure it is continued, and extended to the nonweapon programs.

Finally, I would hope that all reorganization proposals recognize, as the current one does, the tremendous value of the national asset represented by the National Laboratories, such as Sandia, with their almost unique technical depth and research capabilities. It is too bad, but I believe it to be true, that many of our historically excellent R&D institutions in the private sector are moving away from basic research by becoming more product-oriented with short range objectives. I hope the nation will continue to cherish and preserve those institutions like Sandia that still maintain a broad spectrum of research and development.

STATEMENT BY ROBERT N. THORN
DEPUTY DIRECTOR, LOS ALAMOS NATIONAL LABORATORY
LOS ALAMOS, NEW MEXICO
BEFORE THE SENATE COMMITTEE ON GOVERNMENT AFFAIRS
TUESDAY, SEPTEMBER 21, 1982

Mr. Chairman:

I appreciate this opportunity to discuss matters which might affect the Los Alamos National Laboratory and particularly issues relating to the Federal Energy Reorganization Act of 1982, S.2562.

The Director of the Laboratory, Donald M. Kerr, is unavailable and sends his regrets. He is Chairman of the Committee on Energy Research and Development of the International Energy Agency, which is part of the Organization for Economic Cooperation and Development. He is attending a meeting of that group in Paris which has been scheduled for many months.

It is clear that the reorganization proposed in S.2562 would affect Los Alamos, but it is not as clear what the impact of the proposal would actually be. The Laboratory, which has always been run by the University of California, has functioned under four different sponsors during its history: the U.S. Army, the Atomic Energy Commission, the Energy Research and Development Administration, and the Department of Energy, and we would undoubtedly be able to function under the organization proposed in S.2562.

Perhaps the best assistance I can provide is to discuss some of the important features of Los Alamos that would be essential to preserve in any consideration of reorganizing federal energy activities. Let me discuss those.

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First, it is important that the Laboratory continue to have diversity in the programs assigned to it. At present the Laboratory has approximately 55% of its activities in national security areas. The remainder is in diverse programs ranging from work in the life sciences to development of energy technology. The diversity is very important, and should not be understated. While we are principally a weapons Laboratory and began as a single purpose nuclear weapons Laboratory, the current diversity of assignment helps us in many ways. It allows scientists to move among different challenging assignments, thereby providing the stimulus that is necessary for rigorous intellectual activity. Anyone can become stale if assigned to one specific task for an extensive period of time. The renewal that occurs from being able to shift to new fields for some period of time allows scientists to remain at Los Alamos and be available to function in the weapons program.

This diversity is very important in recruiting young scientists, and that is a very important need at national laboratories. There must be new ideas constantly flowing to the Laboratory as well as from it, and young staff members are essential in that process. A single purpose laboratory that dealt with nuclear weapons alone or even national security issues alone would be a less attractive place to work for most new staff members. It is critical to national defense that the programs should be diverse enough that we are able to attract a broad range of programs and scientists.

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Second, the multiprogram laboratories have rendered a very critical service to the Federal Government and have performed this assignment very well. That record of performance merits continued support. It is important that any reorganization be structured so that such support would flow naturally from the organization and would not require constant and extensive efforts to maintain.

Third, the weapons laboratories have been managed in a fashion that has been very productive, and that pattern should be continued. A key to this has been the fact that large field operations have been governed by a small headquarters staff. That was an intentional arrangement from the beginning of the Manhattan Project and continued through the Atomic Energy Commission. That pattern has been adjusted somewhat in the last few years. No further shift of control can occur without damaging the productivity and innovation that is an essential part of the national laboratories.

Fourth, it is important that basic research be reemphasized. In the past few years, immediate needs have been pressed too hard in some cases. This has been to the detriment of longer term efforts that may yield significant benefits for the nation. If all efforts are placed on

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the short term, then new ideas will suffer from lack of investment. The nation cannot afford to have this occur. The laboratories suffer in two ways when this occurs. The first effect is the one I already described, which will mean that fewer bold and innovative ideas will come forward as the years progress. The second effect is on the quality of the staff of the laboratory. Unless there is some portion of the programs that allow scientists to follow important new leads without immediate relationship to existing programs, the laboratories will lose their best scientists. That will have an even further negative impact on the quality of the work that flows from the laboratories. There are two additional suggestions I would like to make.

First, two-year appropriations for R&D might be useful as a stabilizing measure.

Second, laboratory directors might be given substantially more flexibility to deploy resources and initiate or adapt programs within broad guidelines provide by Department.

I appreciate the opportunity to discuss these issues with you and would be happy to answer any questions you might have.

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STATEMENT OF
DR. ALVIN W. TRIVELPIECE
DIRECTOR
OFFICE OF ENERGY RESEARCH
BEFORE THE
SENATE COMMITTEE ON GOVERNMENTAL AFFAIRS
SEPTEMBER 21, 1982

Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before you today to discuss the role of the national laboratories in energy research, and their status and function both under the Department of Energy (DOE) organization and under the reorganization proposed by S. 2562, the Federal Energy Reorganization Act of 1982.

As Director of Energy Research for the Department of Energy, I have statutory responsibility for the overall well-being and management of the DOE nonweapons laboratories. I also act as agent for the Under Secretary, who chairs the Field and Laboratory Coordination Council, in coordinating various DOE-wide laboratory management processes, such as institutional planning, new work approval, multiprogram general purpose facilities program, work for others, laboratory appraisals, and technology transfer.

In general, the Department's basic and applied research is carried out by universities and Government-owned, contractor-operated laboratories, while technology development is carried out by Government laboratories and private industry. These Government-owned laboratories are vital to DOE's mission. By virtue of their range of work, from basic scientific research through technology development, they are a major intermediary between the scientific community's ideas and knowledge and the private sector's ability to translate that knowledge into commercial products.

The Department currently considers nine of its laboratories to be multiprogram facilities, the other 32 to be program-specific. Although 12 were historically considered multiprogram, three, Ames Laboratory, Hanford Engineering Development Laboratory, and Savannah River Laboratory, are now focused almost exclusively in single program areas.

The reporting arrangement of the laboratories (Chart 1 attached) is based on the principle that the program Assistant Secretary with the largest activity at the laboratory should be responsible for the laboratory's overall institutional health and management review. As the attached chart shows, four multiprogram laboratories and 17 program-specific laboratories report directly to the Director of Energy Research, two multiprogram laboratories and six program-specific laboratories report to the Assistant Secretary for Nuclear Energy, five Energy Technology Centers report to the Assistant Secretary for Fossil Energy, and the Solar Energy Research Institute reports to the Assistant Secretary for Conservation and Renewable Energy. The remainder of the DOE laboratories conduct primarily weapons-related activities, and report to the Assistant Secretary for Defense Programs. The three national laboratories, Los Alamos National Laboratory, Lawrence Livermore National Laboratory, and Sandia National Laboratories, which are primarily weapons oriented, also carry out important energy research. I will confine my remarks to nonweapons programs.

The national laboratory complex had its origins in the Manhattan Project, and was formalized and expanded under the Atomic Energy Commission (AEC). The multidisciplinary character of the laboratories sprang initially from the requirements of the atomic bomb project and related demands in radiation biology and health effects. In order to meet these demands, expertise was needed in virtually all the sciences (physics, chemistry, biology, engineering, and a wide spectrum of specialties within these disciplines). This feature of the laboratories was accentuated in response to the later inclusion of nuclear power research and development as a major laboratory mission. In this period, there evolved the concept of the laboratories as the guardian of "national trust" missions in high energy and nuclear physics.

The oil embargo of 1973-74 created pressure for an increased Federal role in research and development on alternatives to the oil and gas upon which the Nation had become dependent. Upon its creation in 1974, the new Energy Research and Development Administration (ERDA) acquired from the Atomic Energy Commission the national laboratories, as well as the AEC programs on nuclear reactors, fusion research, uranium enrichment, basic scientific research, and its nuclear weapons research and production facilities. ERDA received and consolidated most of the other isolated pockets of energy research that had been carried on elsewhere in the Government, such as the Department of the Interior's Office of Coal Research, Energy Technology Centers, coal liquefaction and gasification programs, and other fossil and electrical energy research. ERDA also acquired the solar energy research, conservation research, and geothermal power research programs of the National Science Foundation, as well as the Environmental Protection Agency's programs on advanced automotive propulsion.

Under ERDA and, less than three years later, under the Department of Energy into which ERDA was folded, the national laboratories were uniquely equipped to contribute significantly to Federal efforts in energy research and development, including the health, safety, and environmental aspects of emerging technologies.

Over the years, the laboratories also undertook other functions. These include managing large research facilities and making them available to university and industry researchers, providing their special capabilities to assist other Federal agencies, and functioning as strong international links in scientific and technological areas. By policy decision, the national laboratories were established as federally-owned and funded facilities operated and staffed by private contractors. Even today, they represent the largest group, in terms of numbers, staffing and funding, of Government-owned, contractor-operated facilities sponsored by the Federal Government or, indeed, by any Nation in the world.

As it is now constituted, the multiprogram national laboratory complex represents an impressive national research and development asset. The institutional strength of the DOE laboratories is based primarily on their technical staffs, their physical facilities, and their ability to marshall all of the resources of the laboratory to solve specific technological problems. In basic research, they have unique advantages in the performance of unusually large, integrated basic research activities centered around expensive scientific instruments; especially when relatively extensive interaction with the academic community is desired.

To a degree, the long-range nature of the research being carried on by the national laboratories, and the sophisticated equipment and staff capabilities available to them to carry out assigned projects, makes them somewhat independent from the Washington-based organizational umbrella under which they carry out their work. Some researchers at the national laboratories, I am confident, are extending the same line of research that they began under the AEC and continued under ERDA and the DOE.

Of course, the policy direction from the Administration to the national laboratories is important. The continuation of the national laboratories is a given, no less for the Reagan Administration than for its predecessors.

DOE management under the Reagan Administration has carried on and broadened a policy in effect since the inception of DOE, that the execution of DOE outlay programs, including those carried out at the national laboratories, will be decentralized to the maximum extent practical. Generally, the execution, management and control of projects can best be performed on a day-to-day basis in the field.

The DOE's Institutional Planning Process, which provides overall direction of the laboratories from Headquarters, has been upgraded, as have our policies on performing work for others and technology transfer. As part of the institutional management system, the operations offices conduct periodic appraisals of multiprogram laboratories. These reviews focus on assessing the technical and managerial performance of the contractors operating the laboratories and are conducted in conjunction with renewal of operating contracts.

In addition, last year, the Deputy Secretary of Energy charged the Department's Energy Research Advisory Board, the highest level independent advisory group within the Department, with assessing, in energy-related terms, the appropriate roles and missions of the laboratories vis-a-vis industry and universities, the scientific and technological capabilities of the laboratories, the Department's policies and procedures with respect to the laboratories and the effectiveness of the Department's use of the laboratories. This report, due out shortly, will be, in the words of the Deputy Secretary, ". . . a comprehensive study that will help shape the future of the Department's multiprogram laboratories."

That future will be in part shaped by current Administration policy, which calls for increased reliance upon the private sector for technological advancements but recognizes an appropriate Federal role in supporting long-range, high-risk, potentially high-payoff research and development beyond that which can be expected from the private sector.

However, we also expect the future of the national laboratories to be enhanced by another aspect of Administration energy policy: that of ending the isolation of energy policy development from the mainstream of economic policy development. It was in the interest of integrating energy policy and programs with other aspects of policy development that the Administration proposed merging the Department of Energy into the Department of Commerce, a proposal before you now as S. 2562, the Federal Energy Reorganization Act of 1982.

In the course of considering the implications of such a merger, we realized that transferring the DOE's energy research activities, including the national laboratory system, to the Department of Commerce (DOC) is totally compatible with our overall desires to ensure the best use of the Government's research assets. The reasoning behind our proposal for such a transfer is based on two perceptions: first, that energy is just one of several economic problems confronting the United States, many in the areas of advanced technologies; and second, that Federal research calls for institutional flexibility needed to improve research management.

The Federal Government supports research and development first, to fulfill governmental needs, where the sole or primary user of the R&D is the Government itself, for example, national defense R&D; and second, to meet nongovernmental national needs, where the Government helps to assure the strength of the Nation's economy and the welfare of its citizens through the support of R&D in specific areas such as agriculture, health, and energy.

However, the primary responsibility for supporting or performing R&D needed to meet nongovernmental national needs does not, and cannot, lie with the Government. That responsibility lies with the private sector. The Government's primary role is to conduct long-term basic R&D.

The Government does, however, have an important role: to support directly or to perform basic R&D when there is a substantial prospect for significant national economic gain, but when the private sector is unlikely to invest adequately because the potential gains are too remote or speculative. Thus, the Government supports basic research across all scientific disciplines but limits its applied research and technology-development activities primarily to technologies, such as fushion power, and breeder reactors that require a long period of initial development and where both the risk and potential payoff are high.

The research programs of the national laboratories must be sensitive to national interests. The laboratories have facilities and capabilities that can contribute to the technological base that supports growth and productivity. To this end, the laboratories should, of course, continue to support the highest quality basic research.

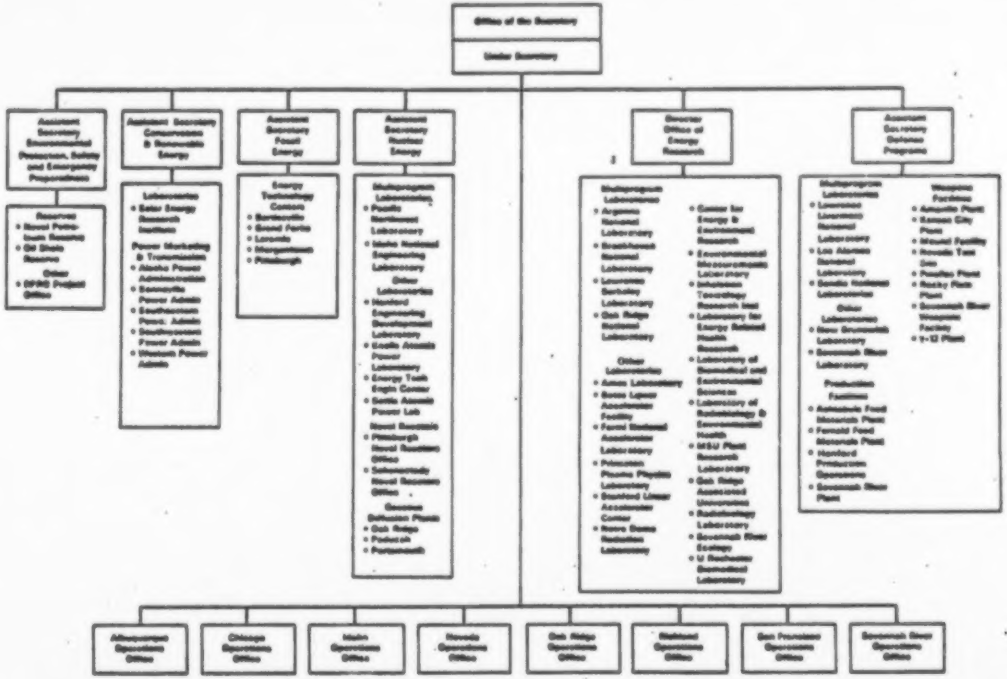
As a practical matter, transferring the national laboratories currently under DOE auspices would significantly enlarge DOC's already considerable role in Federal research without disrupting the research programs. DOC already manages the many research facilities of the National Bureau of Standards, the National Telecommunications and Information Administration, and the National Oceanic and Atmospheric Administration, which support research in several high-technology areas. In short, adding the DOE national laboratories to DOC's array of research facilities would greatly complement DOC's existing research responsibilities and increase programmatic cohesion and administrative efficiency in Federal research,

The proposed transfer to the Department most responsive to the advice of those in the business and scientific communities will ensure that Federal research is focused on topic areas that will ultimately contribute to the technologies that are important to the Nation.

With the transfer of these national laboratories, DOC would be entrusted with the stewardship of a major part of the Federal research assets with an enhanced capability to conceive and coordinate national research resources. By gathering many Federal research assets together, the Federal Government, through DOC, would be able to provide timely and effective support to research necessary to meet the Nation's future needs.

Mr. Chairman, this concludes my prepared remarks. I would be happy to respond to questions.

DOE Field Facilities Reporting Organization


Office of the Secretary
Under Secretary
Assistant Secretary Environmental Protection, Safety and Emergency Preparedness
Reserves
• Naval Petroleum Reserves
• Oil Shale Reserves
Other
• SPRO Project Office
Assistant Secretary Conservation & Renewable Energy
Laboratories
• Solar Energy Research Institute
Power Marketing & Transmission
• Alaska Power Administration
• Bonneville Power Admin
• Southeastern Power Admin
• Southwestern Power Admin
• Western Power Admin
Assistant Secretary Fossil Energy
Energy Technology Centers
• Bartlesville
• Grand Forks
• Laramie
• Morgantown
• Pittsburgh
Assistant Secretary Nuclear Energy
Multiprogram Laboratories
• Pacific Northwest Laboratory
• Idaho National Engineering Laboratory
Other Laboratories
• Hanford Engineering Development Laboratory
• Knolls Atomic Power Laboratory
• Energy Tech Engin Center
• Bettis Atomic Power Lab
Naval Reactors
• Pittsburgh Naval Reactors Office
• Schenectady Naval Reactors Office
Gaseous Diffusion Plants
• Oak Ridge
• Paducah
• Portsmouth
Director Office of Energy Research
Multiprogram Laboratories
• Argonne National Laboratory
• Brookhaven National Laboratory
• Lawrence Berkeley Laboratory
• Oak Ridge National Laboratory
Other Laboratories
• Ames Laboratory
• Bates Linear Accelerator Facility
• Fermi National Accelerator Laboratory
• Princeton Plasma Physics Laboratory
• Stanford Linear Accelerator Center
• Notre Dame Radiation Laboratory
• Center for Energy & Environment Research
• Environmental Measurements Laboratory
• Inhalation Toxicology Research Inst
• Laboratory for Energy Related Health Research
• Laboratory of Biomedical and Environmental Sciences
• Laboratory of Radiobiology & Environmental Health
• MSU Plant Research Laboratory
• Oak Ridge Associated Universities
• Radiobiology Laboratory
• Savannah River Ecology
• U Rochester Biomedical Laboratory
Assistant Secretary Defense Programs
Multiprogram Laboratories
• Lawrence Livermore National Laboratory
• Los Alamos National Laboratory
• Sandia National Laboratories
Other Laboratories
• New Brunswick Laboratory
• Savannah River Laboratory
Production Facilities
• Ashtabula Feed Materials Plant
• Fernald Feed Materials Plant
• Hanford Production Operations
• Savannah River Plant
Weapons Facilities
• Amarillo Plant
• Kansas City Plant
• Mound Facility
• Nevada Test Site
• Pinellas Plant
• Rocky Flats Plant
• Savannah River Weapons Facility
• Y-12 Plant
Albuquerque Operations Office
Chicago Operations Office
Idaho Operations Office
Nevada Operations Office
Oak Ridge Operations Office
Richland Operations Office
San Francisco Operations Office
Savannah River Operations Office

August 1982

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Senator GLENN. Thank you very much for being here.

The hearing is in recess subject to the call of the Chair.

[Whereupon, at 11:30 a.m., the committee recessed, to reconvene at the call of the Chair.]

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

97TH CONGRESS
2D SESSION

S. 2562

To transfer the functions of the Department of Energy to other agencies, to maintain continuity in vital programs and relationships, to recognize the Federal Energy Regulatory Commission as a separate independent regulatory agency, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 24 (legislative day, MAY 11), 1982

Mr. ROTH (for himself, Mr. BAKER, Mr. MCCLURE, Mr. PACKWOOD, and Mr. TOWER) introduced the following bill; which was read twice and referred to the Committee on Governmental Affairs

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A BILL

To transfer the functions of the Department of Energy to other agencies, to maintain continuity in vital programs and relationships, to recognize the Federal Energy Regulatory Commission as a separate independent regulatory agency, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Federal Energy Reorganization Act of 1982".

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TITLE I—FINDINGS AND PURPOSES; DEFINITIONS

FINDINGS AND PURPOSES

SEC. 101. (a) The Congress finds that—

(1) ensuring that the American people have the ability to plan for and meet their present and future energy needs remains a national priority and is essential if we are to meet our economic and social objectives and provide for our Nation's defense;

(2) experience has demonstrated that the ability of the American people to determine and satisfy their energy needs will be enhanced by increasing our reliance on the marketplace to allocate resources and re-

ducing our dependence on the Federal Government as energy planner, manager, and regulator;

(3) increased reliance on market mechanisms will permit the Federal Government to concentrate its efforts on the efficient and effective performance of a more clearly defined set of important energy responsibilities, including—

(A) creating, through sound and stable fiscal, monetary, and regulatory policies, a climate that encourages businesses and individuals to produce and use energy and other resources efficiently;

(B) integrating the development of energy policy with the Government's overall economic policymaking process to assure consistency and to improve the likelihood that policies will be attuned to the needs of energy producers, business at large, and energy consumers;

(C) supporting national defense needs;

(D) reducing the Nation's vulnerability to major energy supply disruptions;

(E) providing support to the private sector for research and development not otherwise likely to be undertaken but which is essential to achieving national objectives;

(F) performing functions which traditionally have been viewed as governmental in nature, such as stewardship of Federal resource reserves and utility regulation required by law; and

(G) working in harmony with other nations to achieve solutions to shared energy problems; and

(4) recognizing that the Federal Government should concentrate its efforts on these essential tasks while leaving the rest to private decision and initiative and recognizing further that these tasks can be performed by other Federal agencies eliminates the justification for the expenditure of public funds to maintain the Department of Energy as an independent Federal entity.

(b) The purposes of this Act are—

(1) to transfer the functions of the Department of Energy to the Department of Commerce, the Department of the Interior, the Department of Justice, the Department of Agriculture, and an independent Federal Energy Regulatory Commission; and

(2) to maintain continuity in vital programs and to increase the efficiency of their operations.

DEFINITIONS

SEC. 102. As used in this Act, unless otherwise indicated by the context of the term—

(1) "Commission" means the Federal Energy Regulatory Commission;

(2) "Department" means the Department of Commerce, the Department of the Interior, the Department of Agriculture, or the Department of Justice for purposes of titles VI, VII, and VIII, as appropriately determined by the context of the Act;

(3) "function" includes any duty, obligation, power, authority, responsibility, right, privilege, activity, or program;

(4) "perform" or "performance", when used in relation to a function, includes the exercise of power, authority, rights, and privileges; and

(5) "Secretary" means the Secretary of Commerce, the Secretary of the Interior, the Secretary of Agriculture, or the Attorney General, for purposes of titles VI, VII, and VIII, as appropriately determined by the context.

RELATIONSHIP WITH STATES

SEC. 103. Whenever any proposed action by the Department of Commerce conflicts with the energy plan of any State, the Department shall give due consideration to the needs of such State, and where practicable, shall attempt to resolve such conflict through consultations with appropriate State officials. Nothing in this Act shall affect the authority of any State over matters exclusively within its jurisdiction.

TITLE II—TRANSFERS OF FUNCTIONS

TRANSFERS TO THE DEPARTMENT OF COMMERCE

SEC. 201. (a) There are transferred to, and vested in, the Secretary of Commerce all functions vested in, or delegated to, the Secretary of Energy and the Department of Energy under or with respect to—

(1) the Atomic Energy Act of 1954 (42 U.S.C. 2011–2296);

(2) the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5901–5920);

(3) the Energy Reorganization Act of 1974 (42 U.S.C. 5801, 5811–20, 5871–79, and 5891);

(4) the Geothermal Energy Research, Development, and Demonstration Act of 1974 (30 U.S.C. 1101–1164);

(5) the Solar Energy Research, Development, and Demonstration Act of 1974 (42 U.S.C. 5551–5566);

(6) the Solar Heating and Cooling Demonstration Act of 1974 (42 U.S.C. 5501–5517);

(7) the Electric and Hybrid Vehicle Research, Development and Demonstration Act of 1976 (15 U.S.C. 2501–2514);

(8) the Automotive Propulsion Research and Development Act of 1978 (15 U.S.C. 2701–2710);

(9) the Solar Photovoltaic Energy Research, Development, and Demonstration Act of 1978 (42 U.S.C. 5581–5594);

(10) section 112 of the Energy Research and Development Administration Authorization Act of 1977 (42 U.S.C. 5907a);

(11) sections 105, 106, and 107 of the Department of Energy Act of 1978—Civilian Applications (92 Stat. 53, 54; 22 U.S.C. 3224a);

(12) the Geothermal Energy Act of 1980 (30 U.S.C. 1501–1542);

(13) the Magnetic Fusion Engineering Act of 1980 (42 U.S.C. 9301–9312);

(14) the Wind Energy Systems Act of 1980 (42 U.S.C. 9201–9213);

(15) the Ocean Thermal Energy Conversion Research, Development and Demonstration Act (42 U.S.C. 9001–9009);

(16) the Ocean Thermal Energy Conversion Act of 1980 (42 U.S.C. 9101–9167);

(17) the Methane Transportation Research, Development, and Demonstration Act of 1980 (15 U.S.C. 3801-3810);

(18) titles VIII and sections 901-907 of the Surface Mining Control and Reclamation Act of 1977, relating to university coal research laboratories, and energy resource graduate fellowships (30 U.S.C. 1311-1316, 1321-1327);

(19) chapter 641 of title 10, United States Code, relating to the naval petroleum reserves;

(20) the Nuclear Safety Research, Development, and Demonstration Act of 1980 (42 U.S.C. 9701-9708);

(21) the Atomic Energy Community Act of 1955 (42 U.S.C. 2301-2394);

(22) the Nuclear Non-Proliferation Act of 1978 (22 U.S.C. 3201-3282);

(23) the West Valley Demonstration Project Act (42 U.S.C. 2021a nt);

(24) the Euratom Cooperation Act of 1958 (42 U.S.C. 2291-2296);

(25) the Atomic Weapons and Special Nuclear Materials Rewards Act of 1955 (50 U.S.C. 47a-47f);

(26) the Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. 2014, 2021–22, 2111, 2113–14, 2201, 7901, 7911–25, 7941–42);

(27) title II of the Act of June 16, 1972 (Public Law 92–314; 86 Stat. 226), relating to financial assistance for the State of Colorado to limit exposure to radiation from uranium mill tailings in Grand Junction, Colorado;

(28) section 102, title II, and title III of the Energy Policy and Conservation Act (42 U.S.C. 6211, 6261–62, 6271–75, 6291–6317, 6321–27, 6341–46, 6361–63, 6372–71i, and 6371–72i; 15 U.S.C. 2001–12);

(29) the National Energy Conservation Policy Act (Public Law 95–619 (codified in scattered sections of titles 12, 15, 23, and 42 U.S.C.)), including section 641 thereof notwithstanding the provisions of section 709(a) of this Act;

(30) the Emergency Energy Conservation Act of 1979 (42 U.S.C. 6261–62, 6422, 8501–8541);

(31) the Energy Conservation and Production Act (Public Law 94–385 (codified in scattered sections of titles 12, 15, and 42 U.S.C.)), including section 304 of that Act (42 U.S.C. 6833) relating to development and

promulgation of energy conservation standards for new buildings;

(32) section 509 of the Housing and Urban Development Act of 1970 (12 U.S.C. 1701z–8);

(33) the Federal Energy Administration Act of 1974, as amended by this Act (15 U.S.C. 761–790h);

(34) sections 2, 11, and 12 of the Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. 792, 796, and 797);

(35) the National Energy Extension Service Act (42 U.S.C. 7001–7011);

(36) the Energy Security Act (Public Law 96–294 (codified in scattered sections of 7, 10, 12, 15, 16, 30, 42, and 50 App. U.S.C.)), except for functions transferred to the Secretary of Agriculture by section 203(1) of this Act;

(37) the Alaska Federal-Civilian Energy Efficiency Swap Act of 1980 (40 U.S.C. 795–795d);

(38) section 106 of the Act of October 15, 1977 (Public Law 95–134 as added by section 102 of the Act of March 12, 1980; Public Law 96–205 (48 U.S.C. 1681 nt)), relating to a medical care program for certain Marshall Islanders;

(39) section 604 (c)–(e) of the Act of December 24, 1980 (Public Law 96–597; 48 U.S.C. 1492 (c)–

(e)), relating to a comprehensive energy plan for insular areas;

(40) section 232 of the Trade Expansion Act of 1962 (19 U.S.C. 1862);

(41) part B of title I of the Energy Policy and Conservation Act (42 U.S.C. 6231–6246) relating to the Strategic Petroleum Reserve;

(42) the Public Utility Regulatory Policies Act of 1978 (Public Law 95–617 (codified in scattered sections of titles 15, 16, 30, 42, and 43 U.S.C.)), except for functions transferred to the Commission by section 503 of this Act;

(43) the Powerplant and Industrial Fuel Use Act of 1978 (Public Law 95–620 (codified in scattered sections of titles 15, 42, 45, and 49 U.S.C.));

(44) the Defense Production Act of 1950 (50 U.S.C. App. 2061–2169);

(45) the Act of May 16, 1910, and other authorities, formerly exercised by the Bureau of Mines, but limited to fuel supply and demand analysis and data gathering, and coal preparation and analysis;

(46) the Natural Gas Act (15 U.S.C. 717–717w), insofar as it pertains to the import and export of natural gas;

(47) the Federal Power Act (16 U.S.C. 791a–828(c)), insofar as it pertains to export of electricity.

(48) sections 207 and 504(b)(3) of the Natural Gas Policy Act of 1978 (15 U.S.C. 3347, 3414(b)(3)) insofar as they pertain to imported natural gas;

(49) the establishment and review of priorities for curtailments of natural gas as set forth in the Natural Gas Act and the Natural Gas Policy Act;

(50) the functions set forth in the Interstate Commerce Act (codified in scattered sections of titles 15 and 49 U.S.C.), and other statutes which formerly vested authority in the Interstate Commerce Commission or the Chairman and members thereof, relating to transportation of oil by pipeline, except as provided in section 503(a)(4) of this Act;

(51) title X of the Omnibus Reconciliation Act of 1981 insofar as it applies to the functions transferrred by this section; and

(52) any other law or authority, except as otherwise provided for in this Act.

(b) The Secretary may exercise any power of the Commission—

(1) under sections 8, 9, 13 through 17, 20, and 21 of the Natural Gas Act (15 U.S.C. 717g, 717h, 717l–717p, 717s, 717t), to the extent he determines it

necessary to the exercise of the functions vested in him under the Natural Gas Act by this Act; and

(2) under sections 4, 301, 302, 306 through 309, and 312 through 316 of the Federal Power Act (16 U.S.C. 797, 825, 825a, 825e–825h, 825k–825o), to the extent he determines it necessary to the exercise of the functions vested in him by section 201(a)(47) of this Act.

(c) All functions of the Secretary of Energy and the Department of Energy with respect to—

(1) establishing and implementing policies regarding international energy issues that affect energy research, development, utilization, supply, and conservation in the United States; and

(2) undertaking activities involving the integration of foreign and domestic energy policy, including the provision of independent technical advice to the President on international negotiations involving energy resources, energy technologies, and nuclear weapons

are transferred to the Secretary of Commerce and are to be exercised in a manner that assures continued coordination with the Secretary of State, the Secretary of Defense, and the Secretary of the Treasury. With respect to functions transferred by this section, the Secretary of State shall exercise primary authority for the conduct of foreign policy.

TRANSFERS TO THE DEPARTMENT OF THE INTERIOR

SEC. 202. There are transferred to, and invested in, the Secretary of the Interior all functions vested in, or delegated to, the Secretary of Energy and the Department of Energy under or with respect to—

(1) section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), and all other functions of the Secretary of Energy and the Department of Energy, with respect to—

(A) the Southeastern Power Administration;

(B) the Southwestern Power Administration;

(C) the Alaska Power Administration;

(D) the Bonneville Power Administration including, but not limited to, the authority contained in the Bonneville Project Act of 1937, the Federal Columbia River Transmission System Act, and the Pacific Northwest Electric Power Planning and Conservation Act; and

(E) the Western Area Power Administration.

The Southeastern Power Administration, the Southwestern Power Administration, the Bonneville Power Administration, the Alaska Power Administration, and the Western Area Power Administration shall be preserved as separate and distinct bureaus within the Department of the Interior. Each of them shall be headed by an Administrator appointed by the Secretary of the Interior. The functions transferred to the Secretary of the Interior in paragraphs (1)(A), (1)(B), (1)(C), (1)(D), and (1)(E) shall be exercised by the Secretary of the Interior, acting by and through the appropriate Administrator. Each Administrator shall maintain his principal office at a location in the region served by the Administrator's respective Federal power marketing entity;

(2) the Outer Continental Shelf Lands Act Amendments (Public Law 95-372; 99 Stat. 629), and any other authority of the Secretary of Energy relating to the award or administration of Federal leases not previously transferred to the Secretary of the Interior by the Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1982 (Public Law 97-100; 95 Stat. 1391), which repealed sections 302(b), 302(c), and 303(c) of the Department of Energy Organization Act;

(3) section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), section 2 of the Eklutna Project Act (Public Law 628, 81st Cong.; 64 Stat. 382), and section 1 of the Act of June 18, 1954 (Public Law 406, 83d Cong.; 68 Stat. 255), as amended by section 1 of the Act of December 23, 1963 (Public Law 88-237;

77 Stat. 475), insofar as they relate to the confirmation and approval of rates for the sale of Federal power;

(4) the Act of May 16, 1910, and other authorities formerly exercised by the Bureau of Mines, but limited to research and development relating to increased efficiency of production technology of solid fuel minerals;

(5) section 908 of the Surface Mining Control and Reclamation Act of 1977, relating to research and development concerning alternative coal mining technologies (30 U.S.C. 1328); and

(6) title X of the Omnibus Reconciliation Act of 1981 insofar as it applies to the functions transferred by this section.

TRANSFERS TO THE DEPARTMENT OF AGRICULTURE

SEC. 203. There are transferred to, and vested in, the Secretary of Agriculture all functions vested in, or delegated to the Secretary of Energy and the Department of Energy under or with respect to—

(1) subtitle A of the Biomass Energy and Alcohol Fuels Act of 1980 (42 U.S.C. 8811–8821);

(2) section 221 of the Energy Tax Act of 1978 (26 U.S.C. 4041 nt); and

(3) title X of the Omnibus Reconciliation Act of 1981 insofar as it applies to the functions transferred by this section.

TRANSFER TO THE DEPARTMENT OF JUSTICE

SEC. 204. (a) There are transferred to, and vested in, the Attorney General all functions vested in, or delegated to the Secretary of Energy and the Department of Energy under the Emergency Petroleum Allocation Act of 1973 (15 U.S.C. 751–760h). To the extent he considers it necessary to carry out functions under this section, the Attorney General may utilize authorities under section 13 of the Federal Energy Administration Act of 1974 (15 U.S.C. 772).

(b) Notwithstanding any other provision of law, the conduct of any litigation in which the United States, an agency, or officer thereof is a party or is interested, arising from any function or authority transferred under sections 201, 202, or 203 of this Act, is reserved to officers of the Department of Justice, under the direction of the Attorney General.

TITLE III—ORGANIZATION OF ENERGY AND DEFENSE PROGRAM FUNCTIONS

DEPUTY SECRETARIES

SEC. 301. (a) There shall be established by this section within the Department of Commerce two additional Deputy Secretaries who shall be appointed by the President, by and with the advice and consent of the Senate. The Deputy Secretaries shall be compensated at the rate provided for level II of the Executive Schedule under section 5313 of title 5, United States Code. The Deputy Secretaries shall perform those functions transferred or delegated to, or vested in, the Secretary of Commerce that the Secretary may prescribe, and shall report to the Secretary; or upon a written delegation by the Secretary to the Deputy Secretary of Commerce.

(b)(1) One of the Deputy Secretaries shall be the Deputy Secretary for Defense Programs who shall perform, in addition to such other functions as the Secretary may prescribe, nuclear-related functions that support the Department of Defense in meeting its defense objectives. Those functions include defense-related intelligence activities; management and implementation of the national security and nuclear weapons programs, such as nuclear weapons research, development, testing, and production; and the performance of functions of the Department of Energy with respect to the Military Liaison Committee established by section 27 of the Atomic Energy Act of 1954 (42 U.S.C. 2037).

(2) In accordance with procedures prescribed by the President, the Deputy Secretary whose functions are described in paragraph (1) of this subsection shall provide the President with such technical advice as the President may require on all matters related to nuclear weapons which are the responsibility of the Department of Commerce.

(3) The Deputy Secretary whose functions are described in paragraph (1) of this subsection shall be an individual who, by demonstrated ability, background, training, and experience is specially qualified to understand and assess fairly the issues, problems, and concerns relating to nuclear defense programs.

(c) One of the Deputy Secretaries shall be the Deputy Secretary for Energy who shall perform, in addition to such other functions as the Secretary may prescribe, those functions relating to domestic and international energy policy formulation and implementation, energy emergency planning, energy planning and analysis authorized or required by laws in section 201 (other than analysis assigned to the Bureau of Energy information pursuant to title IV), any regulatory function transferred to the Department of Commerce pursuant to section 201 or any other provision of this Act, nuclear nonproliferation responsibilities transferred to the Department of Commerce pursuant to section 201, civilian nuclear power, naval nuclear propulsion, long-term basic and applied energy research, development and demonstration activities of the Department of Commerce, energy conservation, utilization of alternate or renewable energy sources and fossil fuel technology.

SENIOR OFFICERS

SEC. 302. (a) There shall be within the Department of Commerce an Associate Deputy Secretary for Energy Policy and Research who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall receive compensation at the rate prescribed for level IV of the Executive Schedule under section 5315 of title 5, United States Code. The Associate Deputy Secretary for Energy Policy and Research shall report to the Secretary through the Deputy Secretary whose functions are described in section 301(c), shall perform such duties as the Secretary or that Deputy Secretary may from time to time prescribe, and shall act for and exercise the functions of that Deputy Secretary during the absence or disability of such person or in the event such office becomes vacant.

(b) There shall be within the Department of Commerce an Associate Deputy Secretary for Defense Programs who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall receive compensation at the rate prescribed for level IV of the Executive Schedule under section 5315 of title 5, United States Code. The Associate Deputy Secretary for Defense Programs shall report to the Secretary through the Deputy Secretary whose functions are described in section 301(b), shall perform such duties as the Secretary or that Deputy Secretary may from time to time prescribe, and shall act for and exercise the functions of that Deputy Secretary during the absence or disability of such person or in the event such office becomes vacant.

(c)(1) There shall be established by this section within the Department of Commerce five additional Assistant Secretaries who shall be appointed by the President, by and with the advice and consent of the Senate. The Assistant Secretaries shall be compensated at the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code. The Assistant Secretaries shall perform those functions transferred or delegated to, or vested in, the Secretary of Commerce that the Secretary may prescribe.

(2) One of the Assistant Secretaries shall be the Assistant Secretary for Nuclear Materials who shall perform, in addition to such other functions as the Secretary may prescribe, those functions which relate to production of nuclear materials for nuclear weapons research, development, testing, and production, and to the management of defense nuclear waste. The Assistant Secretary for Nuclear Materials shall report to the Deputy Secretary whose functions are described in section 301(b) of this Act.

(3) One of the Assistant Secretaries shall be the Assistant Secretary for Energy Research who shall perform, in addition to such other functions as the Secretary may prescribe,

those functions which relate to developing magnetic fusion energy technology, and managing the long-term basic and applied energy research programs, including research in both the basic energy sciences and the high energy and nuclear physics programs.

(4) One of the Assistant Secretaries shall be the Assistant Secretary for Energy Technology, Conservation, and Alternative Sources who shall perform, in addition to such other functions as the Secretary may prescribe, those functions relating to energy conservation and to the development of technologies for fossil energy and renewable energy sources.

(5) One of the Assistant Secretaries shall be the Assistant Secretary for Nuclear Energy who shall perform, in addition to such other functions as the Secretary may prescribe, those functions which relate to managing the Federal program of research on and development of the technology for nuclear power production, including research on and development of breeder reactor systems, naval nuclear propulsion, and disposal of nondefense generated nuclear waste.

(6) One of the Assistant Secretaries shall be the Assistant Secretary for Energy Emergency Planning who shall perform, in addition to such other functions as the Secretary may prescribe, those functions relating to reducing United States vulnerability to energy supply interruptions and plan-

ning for energy emergencies. These functions shall include operation of the strategic petroleum reserve and the naval petroleum reserve.

(7) The Assistant Secretaries whose functions are described in sections 302 (c)(3), (c)(4), (c)(5), and (c)(6), shall report to the Deputy Secretary whose functions are described in section 301(c) of this Act. Notwithstanding the manner in which the functions of the Assistant Secretaries are set forth in sections 302 (c)(3), (c)(4), (c)(5), and (c)(6), the Secretary may reassign any of those functions from any one of those Assistant Secretaries to either of the others.

(d) There shall be within the Department of Commerce a Assistant Secretary for Security Affairs who shall be appointed by the President and who shall receive compensation at the rate prescribed for level V of the Executive Schedule under section 5316 of title 5, United States Code. The Assistant Secretary for Security Affairs shall report to the Secretary through the Deputy Secretary whose functions are described in section 301(b) and shall perform such of those functions that relate to security affairs as the Secretary or that Deputy Secretary may from time to time prescribe.

NAVAL REACTOR AND MILITARY APPLICATION PROGRAMS

SEC. 303. (a) There shall be in the Department of Commerce a Division of Naval Reactors which shall perform the research, design, development, health, and safety functions relating to naval nuclear propulsion and assigned civilian power reactor programs vested in the Secretary by this Act. The head of this Division shall report to the Assistant Secretary for Nuclear Energy, whose functions are described in section 302(e) of this Act.

(b) There shall be in the Department of Commerce the Division of Military Application, established by section 25 of the Atomic Energy Act of 1954 (42 U.S.C. 2035). The Director of this Division shall perform, in addition to such other functions as the Secretary may prescribe, functions relating to nuclear weapons research, development, testing, and production. The Director of this Division shall report to the Deputy Secretary whose functions are described in section 301(b) of this Act and shall be an active commissioned officer of the Armed Forces in general or flag rank or grade, as appropriate.

TITLE IV—ENERGY INFORMATION AND STRATEGIC PLANNING

BUREAU OF ENERGY INFORMATION

SEC. 401. (a) There shall be within the Department of Commerce a Bureau of Energy Information (the Bureau) headed by a Director who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall be compensated at the rate provided for in level V of the Executive Schedule under section 5316 of title 5, United States Code. The Director shall report to the Secretary through the Under Secretary of Commerce for Economic Affairs.

(b)(1) Under the authority, direction, and control of the Secretary of Commerce, the Bureau shall carry out a comprehensive energy data and information program to collect, evaluate, assemble, analyze, and disseminate data and information that is relevant to energy resources reserves, energy production, demand and technology, and related economic and statistical information, or that is relevant to the adequacy of energy resources to meet the Nation's current and future economic and social needs. The Bureau shall also perform other functions that the Secretary may prescribe.

(2) The Director shall not be required to obtain the approval of any other officer or employee of the Department in connection with the analysis of any information; nor shall the Director be required, prior to publication, to obtain the approval of any other officer or employee of the United States with respect to the substance of any statistical or forecasting technical reports which he has prepared in accordance with law: *Provided, however,* That in performing the functions delegated to him, the Director shall be subject to the Paperwork Reduction Act of 1980.

(3) The Bureau shall be subject to an annual professional audit of performance as described in section 55 of part B of

the Federal Energy Administration Act of 1974 (15 U.S.C. 790d).

(c) Information collected by the Bureau shall be cataloged and, upon request, shall be made available to the public in a form and manner easily adaptable for public use, except that this subsection shall not require disclosure of matters exempted from mandatory disclosure by section 552(b) of title 5, United States Code.

(d)(1) The Secretary, before starting an energy information data collection effort, shall determine, after consultation with the Commission, whether the information is to be gathered solely for statistical purposes.

(2) Data to be gathered solely for statistical purposes shall be made available in individually indentifiable form to another office or component within the Department or to another Federal agency only upon receipt of a written request that the Secretary is satisfied contains—

(A) a demonstration of need for the data in individually identifiable form by that office or component for the fulfillment of its lawful duties and responsibilities, and

(B) reasonable and binding assurances by the requesting office or component that the information will be used solely for statistical purposes.

(3) For purposes of this section, "statistical purposes" means the use of information for developing or reporting aggregate or anonymous information not intended to be used, in whole or in part, in any way in which the specific indentity of any person is material to the intended use of the information.

(4) Individually indentifiable information gathered solely for statistical purposes under this section shall be exempt from public disclosure under subsection 552(b)(3) of title 5, United States Code.

(5) Whoever publishes or communicates any information the disclosure of which is prohibited by this subsection, shall be fined not more than $5,000 or imprisoned for not more than five years or both.

(e) The Secretary, to the maximum extent practicable, shall assign the highest priority to collection and assembly of energy information for the purposes requested by the Commission and shall provide to the Commission such support and facilities as the Commission determines it needs to carry out its functions. All gathering, reporting, and enforcing powers relating to energy information vested in the Secretary under the Federal Energy Administration Act of 1974 and the Energy Supply and Environmental Coordination Act of 1974 shall be available to the extent necessary or appropriate to the exercise of the functions vested in the Commission.

(f) Section 11(d) of the Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. 796(d)) applies to any energy information obtained by the Bureau for other than statistical purposes under any law except section 17 of the Federal Nonnuclear Research and Development Act of 1974 (42 U.S.C. 5916). Both section 1905 of title 18, United States Code, and any determination of confidentiality made by the Secretary under section 11(d) of the Energy Supply and Environmental Coordination Act of 1974 apply to any subsequent disclosure of energy information by an agency to whom it is disclosed under section 11(d)(2) of the Energy Supply and Environmental Coordination Act of 1974, except that an agency head may disclose energy information received under section 11(d)(2) of the Energy Supply and Environmental Coordination Act of 1974 in any proceeding if—

(1) the agency is a party to the proceeding;

(2) the agency head determines that disclosure of the information in the proceeding is essential to the agency's effective participation in the proceeding; and

(3) the agency head seeks an order in the proceeding protecting against disclosure of the information beyond that necessary to the agency's effective participation in the proceeding.

(g) Notwithstanding subsection (f) of this section, the Secretary may provide energy information gathered by the

Bureau for other than statistical purposes to any Federal agency, provided that it will be used solely for statistical purposes.

(h) Nothing in this section authorizes the disclosure of any information furnished to the Bureau by another Federal agency if such a disclosure is prohibited by statute.

(i) Notwithstanding any other provision of this Act, the authorities of the Secretary under section 4 of the Act of February 14, 1903 (ch. 552, 32 Stat. 826; 15 U.S.C. 1516), apply to this section.

ASSISTANT SECRETARY FOR STRATEGIC PLANNING

SEC. 402. There shall be within the Department an Assistant Secretary for Strategic Planning who shall be appointed by the President by and with the advice and consent of the Senate. The Assistant Secretary shall be compensated at the rate provided for by level IV of the Executive Schedule under section 5315 of title 5, United States Code. The Assistant Secretary shall be responsible for the activities of the Department of Commerce relating to strategic materials and industrial mobilization that were under the authority of the Department of Commerce prior to the date of enactment of this Act and shall perform such other functions as the Secretary shall designate, not including any function included in title III of the Act.

TITLE V—FEDERAL ENERGY REGULATORY COMMISSION

SHORT TITLE

SEC. 501. This title may be cited as the "Federal Energy Regulatory Commission Act".

APPOINTMENT AND ADMINISTRATION

SEC. 502. (a) The Federal Energy Regulatory Commission shall continue as an independent regulatory agency.

(b) The Commission is composed of five members appointed by the President, by and with the advice and consent of the Senate. One of the members shall be designated by the President as Chairman. Members shall hold office for a term of four years and may be removed by the President only for inefficiency, neglect of duty, or malfeasance in office. An incumbent member who is serving on the effective date of this Act shall continue to serve for the balance of the term for which he was appointed. The member serving as Chairman on the effective date of this Act shall continue to serve in that capacity until removed by the President. The Chairman shall be compensated at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code. The other members of the Commission shall be compensated at the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code. The Chairman and other members of the Commission shall be individuals who, by demonstrated ability, background, training, or experience, are specifically qualified to assess fairly the needs and concerns of all interests affected by Federal energy policy. Not more than three members of the Commission shall be members of the same political party. A Commissioner appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed only for the remainder of the predecessor's term. A Commissioner may continue to serve after the expiration of his term until his successor has taken office, except that he may not so continue to serve for more than one year after the date on which his term would otherwise expire under this subsection. A member of the Commission shall not engage in any other business, vocation, or employment while serving on the Commission.

(c) The Chairman is responsible on behalf of the Commission for the executive and administrative operation of the Commission, including functions of the Commission with respect to (1) the appointment and employment of administrative law judges in accordance with the provisions of title 5, United States Code, (2) the selection, appointment, and fixing of the compensation of personnel whom he considers necessary, including an executive director, (3) the supervision of personnel employed by or assigned to the Commission, except that each member of the Commission may select and supervise personnel for his personal staff, (4) the distribution of business among personnel and among administrative units of the Commission, (5) the establishment, alteration, consolidation or termination of organizational units or components within the Commission, and (6) all functions enumerated in sections 508, 511, 512, 513, 514, and 515 of this title.

(d) The Chairman of the Commission may designate any other member of the Commission as Acting Chairman to act in his place during his absence. The Chairman (or the Acting Chairman in the absence of the Chairman) shall preside at all sessions of the Commission. A quorum for the transaction of business consists of at least three members. Each member of the Commission, including the Chairman, has one vote. Actions of the Commission shall be determined by a majority vote of the members present and voting. The Commission shall have an official seal which shall be judicially noticed.

(e) The Commission may establish procedural and administrative rules that are necessary to the exercise of its functions and may conduct proceedings in a manner conducive to the proper dispatch of business and the ends of justice. Until changed by the Commission, any procedural and administrative rules applicable to particular functions over which the Commission has jurisdiction shall continue in effect with respect to those functions.

(f) In carrying out its functions, the Commission shall have the powers authorized by the law under which the function is exercised to hold hearings, sign and issue subpoenas, administer oaths, examine witnesses, and receive evidence at any place in the United States it may designate. The Commission may, by one or more of its members or by agents whom it may designate, conduct any hearing or other inquiry necessary or appropriate to its functions, except that nothing in this subsection supersedes the provisions of section 556 of title 5, United States Code relating to administrative law judges.

(g) The principal office of the Commission shall be in or near the District of Columbia, where its general sessions shall be held, but the Commission may sit anywhere in the United States.

(h) Except as provided in section 518 of title 28, United States Code, relating to litigation before the Supreme Court, attorneys designated by the Chairman of the Commission may appear for, and represent the Commission in, any civil action brought in connection with a function carried out by the Commission under this Act or as otherwise authorized by law.

JURISDICTION OF THE COMMISSION

SEC. 503. (a) Except as provided in subsection (b) of this section, there are transferred to, and vested in, the Commission, as an independent regulatory agency, all functions vested in the Secretary of Energy, Department of Energy, or the Federal Energy Regulatory Commission, an independent regulatory commission within the Department of Energy, under or with respect to:

(1) the Federal Power Act (16 U.S.C. 791a–828(c)), except for the regulation of exports of electricity which is transferred to the Secretary of Commerce by section 201(a)(47) of this Act;

(2) the Natural Gas Act (15 U.S.C. 717–717w), except for the regulation of exports or imports of natural gas which is transferred to the Secretary of Commerce by section 201(a)(46) of this Act, and the establishment and review of priorities for curtailments, which functions are transferred to the Secretary of Commerce by section 201(a)(49) of this Act;

(3) the Natural Gas Policy Act of 1978 (15 U.S.C. 3301–3432), except for functions transferred to the Secretary of Commerce by section 201(a)(48) of this Act, and the establishment and review of priorities for curtailments, which functions are transferred to the Secretary of Commerce by section 201(a)(49) of this Act;

(4) establishing rates or charges for the transportation of oil by pipeline or establishing the valuation of such a pipeline;

(5) title II and sections 405, 605, 606 and 608 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 796, 824i, 824j, 824k, 824a–1, 824a, 824d, 824a–2, 824a–3, 825d, 825q, 823a, 2705; 15 U.S.C. 717x, 717y, and 717f(c)); and

(6) except as otherwise provided by this Act, any other provision of law or authority that vests functions in the Commission.

(b) No function described in this section which regulates the exports or imports of natural gas or electricity shall be within the jurisdiction of the Commission, unless the Secretary assigns such a function pursuant to section 612(b) of this Act.

(c) In addition to the other provisions of this section, the Commission shall have jurisdiction over any other matter which, after public notice, the Secretary may assign to the Commission pursuant to section 612(b) of this Act.

(d) The Commission may prescribe rules, regulations, and statements of policy of general applicability with respect to any function under its jurisdiction. Any function described in this title that relates to the establishment of rates and charges may be conducted by rulemaking procedures. The procedures in such a rulemaking proceeding shall, consistent with the provisions of section 553 of title 5, United States Code, and any other applicable law, assure full consideration of the issues and an opportunity for interested persons to present their views.

ACCESS TO INFORMATION

SEC. 504. Except as otherwise limited by law, each Federal agency shall provide to the Commission, upon request, information in its possession that the Commission determines is necessary to discharge its responsibilities under this title.

DELEGATION

SEC. 505. (a) Except as otherwise expressly prohibited by law, and except as otherwise provided in this title, the Chairman may delegate any of his administrative functions to members, officers, or employees of the Commission whom he may designate, and may authorize successive redelegations within the Commission of those functions that he considers to be necessary or appropriate.

(b) The Commission may delegate, by published order or rule, any of its functions to individual Commission members or to such other officers or employees as it may designate. The Commission shall retain a discretionary right to review action authorized or ordered under delegated authority within the time and in the manner that it prescribes. In the absence of such a review, action under delegated authority has the same force as if taken by the Commission.

JUDICIAL REVIEW

SEC. 506. (a) Judicial review of agency action taken under any law the functions of which are vested in, or transferred to, the Commission or any member, officer, or employee of the Commission, notwithstanding that vesting or transfer, shall be made in the manner specified in or for such a law.

(b) Notwithstanding the amount in controversy, the district courts of the United States shall have exclusive original jurisdiction of all other cases or controversies arising exclusively under this title, or under rules, regulations, or orders issued exclusively thereunder, other than any actions taken to implement or enforce any rule, regulation, or order by any officer of a State or local government agency under this title, except that nothing in this section affects the power of any court of competent jurisdiction to consider, hear, and determine in any proceeding before it any issue raised by way of defense (other than a defense based on the unconstitutionality of this title or the validity of action taken under this title). If in any such proceeding an issue by way of defense is raised based on the unconstitutionality of this title or the validity of agency action under this title, the case shall be subject to the removal by either party to a district court of the United

States in accordance with the applicable provisions of chapter 89 of title 28, United States Code. Cases or controversies arising under any rule, regulation, or order of any officer of a State or local government agency may be heard in either (1) any appropriate State court, or (2) without regard to the amount in controversy, the district courts of the United States.

OFFICERS AND EMPLOYEES

SEC. 507. In the performance of its functions, the Commission may appoint and fix the compensation of officers and employees, including attorneys, who may be necessary. Those officers and employees shall be appointed in accordance with the civil service laws and their compensation fixed in accordance with title 5, United States Code.

ADVISORY COMMITTEES

SEC. 508. The Commission may establish in accordance with the Federal Advisory Committee Act advisory committees that it considers appropriate to assist in the performance of its functions. Members of advisory committees, other than full-time employees of the Federal Government, while attending meetings of the committees or while otherwise serving at the request of the Commission away from their homes or regular places of business, may be allowed travel expenses, including a per diem allowance in lieu of subsistence, as authorized by section 5703 of title 5, United States Code, for individuals in the Government serving without pay.

GENERAL AUTHORITY

SEC. 509. To the extent necessary or appropriate to perform any of its functions, the Commission may exercise any authority available by law, including appropriation Acts, to the commission, agency, or Department from which the function was transferred

SUBPENA

SEC. 510. Except as otherwise provided by law, the Commission or its duly authorized agent or agents, shall have the same power and authority as the Federal Trade Commission under section 9 of the Federal Trade Commission Act (15 U.S.C. 49), for purposes of carrying out its functions.

CONTRACTS

SEC. 511. (a) The Commission may make, enter into, and perform those contracts, leases, cooperative agreements, or other similar transactions with public agencies and private organizations and persons, and to make such payments (in lump sum or installments, and by way of advance or reimbursement) that it considers necessary or appropriate to carry out functions vested in the Commission.

(b) Notwithstanding any other provision of this title, the authority to enter into contracts or to make payments under this title shall be effective only to the extent or in such amounts as are provided in advance in appropriation Acts.

USE OF FACILITIES

SEC. 512. With their consent, the Commission may, with or without reimbursement, use the research, services, equipment, and facilities of any agency or instrumentality of the United States or of any State, the District of Columbia, the Commonwealth of Puerto Rico, or any territory or possession of the United States, or of any political subdivision thereof, or of any foreign government, in carrying out any function now or later vested in the Commission.

FIELD OFFICES

SEC. 513. The Commission may establish, alter, consolidate, maintain or discontinue State, regional, district, local, or other field offices that it considers necessary to carry out its functions.

EXPERTS AND CONSULTANTS

SEC. 514. The Commission may obtain services as authorized by section 3109 of title 5, United States Code, at a rate, not to exceed the daily rate prescribed for grade GS–18 of the General Schedule under section 5332 of title 5, United States Code, for persons in Government service employed intermittently.

GIFTS AND BEQUESTS

SEC. 515. The Commission may accept, administer, and utilize gifts or donations of money or services for the purposes of its functions.

TITLE VI—ADMINISTRATIVE PROVISIONS

Subtitle A—Personnel Provisions

OFFICERS AND EMPLOYEES

SEC. 601. (a) The Secretary may appoint and fix the compensation of the officers and employees, including attorneys, who may be necessary to carry out the functions now or later vested in him that relate to functions transferred by this Act. Except as otherwise provided in this section, those officers and employees shall be appointed in accordance with the civil service laws and their compensation fixed in accordance with title 5, United States Code.

(b) Subject to the limitations on subsection (c) of this section, and to the extent that he considers necessary to the performance of functions now or later vested in him that relate to functions transferred by this Act, the Secretary of Commerce may establish scientific, engineering, professional, and administrative positions, and appoint and subsequently remove from those positions, not more than 5 per centum of the personnel performing those functions described in sections 301 (b) and (c), without regard to civil service or veterans' preference law. The Secretary of Commerce shall fix the compensation of personnel so appointed at rates not in excess of the maximum rate payable for GS–18 of the General Schedule under section 5332 of title 5, United States Code.

(c) Subsection (b) of this section may be used only with respect to a position involving specialized skills or a position that is difficult to fill because of its geographic location.

(d) To the extent deemed necessary by the Deputy Secretary whose functions are described in section 301(b) of this Act, from the standpoint of the effective conduct of the defense programs and supported by the written determination of the Deputy Secretary, and written approval of the Secretary, officers or employees of the Department who are or will be engaged in performing functions relating to defense programs may be employed, and their compensation fixed at rates not to exceed the maximum rate payable for ES–6 of the General Schedule under title 5 of the United States Code, section 5332, without regard to the provisions of said title 5, which provisions shall be utilized as a general guide.

ARMED FORCES PERSONNEL

SEC. 602. (a) The Secretary of Commerce may provide for participation of Armed Forces personnel to perform functions now or later vested in him that relate to functions transferred by this Act. An officer or enlisted member of an Armed Force may be detailed for service in the Department of Commerce by the Secretary (as that term is defined in 10

U.S.C. 101) under an interagency agreement with the Secretary of Commerce.

(b) The detail of personnel under this section does not affect the status, office, rank, or grade that the detailed personnel occupy or hold, or an emolument, perquisite, right, privilege, or benefit incident to or arising out of that status, office, rank, or grade. An officer or enlisted member so detailed is not subject to direction or control by his Armed Force or any officer thereof, directly or indirectly, with respect to the responsibilities exercised in the position to which detailed.

EXPERTS AND CONSULTANTS

SEC. 603. The Secretary may obtain services as authorized by section 3109 of title 5, United States Code, at rates not to exceed the daily rate prescribed for grade GS–18 of the General Schedule under section 5332 of title 5, United States Code, for persons in Government service employed intermittently.

Subtitle B—General Administrative Provisions

GENERAL AUTHORITY

SEC. 611. To the extent necessary or appropriate to perform a function now or later vested in him that relates to functions transferred by this Act, the Secretary may exercise, in carrying out the function so transferred, any authority or part thereof available by law, including appropriation Acts to the official or agency from which the function was transferred.

DELEGATION AND ASSIGNMENT

SEC. 612. (a) Except as otherwise expressly prohibited by law, the Secretary may delegate any of the functions now or later vested in him that relate to functions transferred by this Act to officers and employees of the Department whom he designates, and may authorize successive redelegation of those functions, as appropriate.

(b) The Secretary of Commerce may, with the consent of the Commission, and following public notice, assign any of the functions now or later vested in him that relate to functions transferred by this Act to the Commission under such terms and conditions, and for such period, as are mutually agreed to by the Secretary of Commerce and the Commission.

REORGANIZATION

SEC. 613. The authority of the Secretary of Commerce to establish, alter, consolidate, or discontinue organizational units or components in the Department when he considers that action necessary or appropriate does not extend to the abolition of organizations established by title III of this Act.

RULES

SEC. 614. The Secretary may prescribe rules and regulations that he considers necessary or appropriate to perform the functions now or later vested in him that relate to functions transferred by this Act.

SUBPENA

SEC. 615. The Secretary, or his duly authorized agent, shall have the same powers and authorities as the Federal Trade Commission under section 9 of the Federal Trade Commission Act (15 U.S.C. 49) with respect to all functions now or later vested in, or transferred or delegated to, the Secretary or such an agent, and that relate to functions transferred by this Act.

CONTRACTS

SEC. 616. (a) The Secretary may make, enter into, and perform those contracts, leases, cooperative agreements, grants, or other similar transactions with public agencies, private organizations, and persons, and make payments (in lump sum or installments, and by way of advance or reimbursement, and, in cases of grants, with necessary adjustments on account of overpayments and underpayments) as he considers necessary or appropriate to carry out functions now or later vested in him, that relate to functions transferred by this Act.

(b) Notwithstanding any other provision of this title, the authority to enter into contracts or to make payments under this title shall be effective only to the extent or in such amounts as are provided in advance in appropriation Acts.

(c) Notwithstanding any other law relating to the making or modification of contracts, the Secretary of Commerce, under regulations he may prescribe, may award, modify, extend, or terminate contracts for the operation, management, or support of facilities owned or controlled by the Government that are used in the performance of functions now or later vested in him that relate to functions transferred by this Act.

ACQUISITION AND MAINTENANCE OF PROPERTY

SEC. 617. The Secretary of Commerce, in the performance of functions now or later vested in him that relate to functions transferred by this Act, may acquire (by purchase, lease, condemnation, or otherwise), construct, improve, repair, operate, and maintain real property and interests therein of a special purpose nature, such as laboratories, research and testing sites and facilities, quarters and related accommodations for employees and dependents of employees of the Department, and provide by contract or otherwise for eating facilities and other necessary facilities for the health and welfare of employees of the Department at installations not operated by GSA. General purpose space which could be used or readily and economically adapted for use by other Federal agencies shall be obtained from the Administrator of General Services.

FACILITIES CONSTRUCTION

SEC. 618. (a) The Secretary of Commerce and the Secretary of the Interior, may, when considered necessary, provide for, construct, equip, or maintain the following for employees or their dependents stationed at remote locations and points outside the continental United States—

(1) emergency medical services and supplies;

(2) food and other subsistence supplies;

(3) messing facilities;

(4) audiovisual equipment, accessories, and supplies for recreation and training;

(5) furnished living and working quarters and facilities;

(6) reimbursement for food, clothing, medicine, and other supplies furnished by those employees in emergencies for the temporary relief of distressed persons;

(7) transportation of school age dependents of employees to the nearest appropriate educational facilities.

(b) The Secretary may provide the services and supplies under paragraphs (1), (2), and (3) of subsection (a) to employees of other Federal agencies (including Army, Navy, and Air Force personnel when Army, Navy, or Air Force facilities or supplies are not available and upon request of the service concerned).

(c) The furnishing of services and supplies under paragraphs (2) and (3) of subsection (a), shall be at prices reflecting reasonable value as determined by the Secretary.

(d) When specified in appropriations Acts, funds received in payment for work or services under this section may be credited as reimbursement to the appropriations or funds which initially bore all or part of such costs or may be used to refund excess sums when necessary. Such payments may be credited to a working capital fund otherwise established by law, and used under the law governing such a fund, if the fund is available for use by the Department for performing the work or services for which payment is received.

USE OF FACILITIES

SEC. 619. (a) With their consent, the Secretary, with or without reimbursement, may use the research, services, equipment, and facilities of a person, or public or private nonprofit agency or organization, including any agency or instrumentality of the United States or of any State, the District of Columbia, the Commonwealth of Puerto Rico, or any territory or possession of the United States, or of any political subdivision thereof, or of any foreign government, in carrying out any function now or later vested in the Secretary that relate to functions transferred by this Act.

(b) The Secretary of Commerce, under terms, at rates, and for periods that he considers to be in the public interest, may permit the use by public and private agencies, corporations, associations, or other organizations or by individuals of any real property, or any facility, structure, or other improvement thereon, under his custody. The Secretary of Commerce may require permittees under this section to recondition and maintain, at their own expense, the real property, facilities, structures, and improvements involved to a satisfactory standard.

(c) Proceeds from reimbursements under this section shall be deposited in the Treasury and the Secretary of Commerce may withdraw them to pay directly the costs of the equipment, or facilities provided, to repay or make advances to appropriations or funds which do or will initially bear all or a part of those costs, or to refund excess sums when necessary, except that the proceeds may be credited to a working capital fund otherwise established by law, and used under the law governing such a fund, if the fund is available for use for providing the equipment or facilities involved.

FIELD OFFICES

SEC. 620. The Secretary may establish, alter, consolidate, maintain, or discontinue State, regional, district, local, or other field offices when he considers it necessary to carry out functions now or later vested in him that relate to functions transferred by this Act.

INTELLECTUAL PROPERTY RIGHTS

SEC. 621. The Secretary of Commerce may acquire the following described rights if the property so acquired is for use by or for, or useful to, the Department of Commerce:

(1) copyrights, patents, and applications for patents, designs, processes, and manufacturing data;

(2) licenses under copyrights, patents, and applications for patents; and

(3) releases, before suit is brought, for past infringement of patents or copyrights.

RIGHT TO INTERVENE IN COMMISSION PROCEEDINGS

SEC. 622. The Secretary of Commerce may as a matter of right intervene or otherwise participate in any proceeding before the Commission. The Secretary shall comply with rules of procedure of general applicability governing the timing of intervention or participation in such a proceeding or activity and, upon intervening or participating, shall comply with rules of procedure of general applicability governing the conduct of the proceeding or activity. The intervention or participation of the Secretary in any proceeding or activity shall not affect the obligation of the Commission to assure procedural fairness to all participants.

AUTHORIZATION

SEC. 623. There are authorized to be appropriated such sums as are necessary to carry out the transfers authorized by this Act.

INITIATION OF RULEMAKING PROCEEDINGS BEFORE COMMISSION

SEC. 624. (a) The Secretary of Commerce is authorized to propose rules, regulations, and statements of policy of general applicability with respect to any function within the jurisdiction of the Commission under section 503 of this Act.

(b) The Commission shall have exclusive jurisdiction with respect to any proposal made under subsection (a), and shall consider and take final action on any proposal made by the Secretary of Commerce under such subsection in an expeditious manner in accordance with such reasonable time limits as may be set by the Secretary of Commerce for the completion of action by the Commission on any such proposal.

TITLE VII—TRANSITIONAL, SAVINGS, AND CONFORMING PROVISIONS

TRANSFER AND ALLOCATIONS OF APPROPRIATIONS AND PERSONNEL

SEC. 701. (a) Except as provided in sections 701(b), 701(c), and 702 of this Act, the personnel employed in connection with, and the personnel positions, assets, liabilities, contracts, property, records, and unexpended balance of appropriations, authorizations, allocations, and other funds employed, held, used, arising from, available to or to be made available in connection with functions transferred by this Act, including all Senior Executive Service and GS-16, GS-17, and GS-18 positions, subject to section 202 of the Budget and Accounting Procedure Act of 1950, are transferred to the Department or the Commission for appropriate allocation.

(b) The personnel employed in the Office of Inspector General of the Department of Energy, and the personnel positions, assets, liabilities, contracts, property, records, and unexpended balance of appropriations, authorizations, allocations, and other funds employed, held, used, arising from, available to or to be made available to that Office, subject to section 202 of the Budget and Accounting Procedures Act of 1950, are transferred, as may be appropriate, to the Offices of Inspector General of the Departments listed in section 102(4).

(c) The Director of the Office of Management and Budget, in consultation with the Secretary, shall determine how the transfers described in subsection (b) shall be allocated among the Departments listed in section 102(4).

EFFECT ON PERSONNEL

SEC. 702. Offices established directly by statute or reorganization plan in the Department of Energy (except those of the Federal Energy Regulatory Commission) the incumbents of which are appointed by the President by and with the advice and consent of the Senate shall terminate on the effective date of this Act. Employees of the Department of Energy who were appointed under section 621(d) of the Department of Energy Organization Act (42 U.S.C. 7231(d)) shall have their appointments continued and those appointments shall be considered to be appointments under and subject to section 601(b) of this Act.

INCIDENTAL TRANSFERS

SEC. 703. (a) The Director of the Office of Management and Budget, in consultation with the Secretary and the Commission, shall make such determinations as may be necessary with regard to the transfer of functions which relate to or are utilized by an agency, commission or other body, or component thereof affected by this Act, to make the additional incidental dispositions of personnel, assets, liabilities, contracts, property, records, and unexpended balances of appropriations, authorizations, allocations, and other funds held, used, arising from, available to or to be made available in connection with the functions transferred by this Act, that he considers necessary to accomplish the purposes of this Act.

(b) The unexpended balances of prior appropriations provided for activities in the Department of Energy that are transferred to new appropriation accounts may be merged with funds in the applicable newly established accounts, and thereafter may be accounted for as one fund for the same time period as originally enacted.

SAVINGS PROVISIONS

SEC. 704. (a) All orders, determinations, rules, regulations, permits, contracts, certificates, licenses, and privileges—

(1) that have been issued, made, granted, or allowed to become effective by the President, any Federal department or agency or official thereof, or by a court of competent jurisdiction, in the performance of functions which are transferred under this Act or by Executive order to the Secretary, Department, or the Commission after the date of enactment of this Act, and

(2) that are in effect when this Act takes effect, shall continue in effect according to their terms until modified, terminated, superseded, set aside, or revoked in accordance with law by the President, the Secretary, the Commission, or other authorized officials, a court of competent jurisdiction, or by operation of law.

(b)(1) The provisions of this Act shall not affect a proceeding or an application for any license, permit, certificate, or financial assistance pending at the time this Act takes effect before any department, agency, commission, or component thereof, functions of which are transferred by this Act; but such a proceeding or application, to the extent that it relates to functions transferred, shall be continued. Orders shall be issued in such a proceeding, appeals shall be taken therefrom, and payments shall be made under such orders, as if this Act had not been enacted; and orders issued in such a proceeding shall continue in effect until modified, terminated, superseded, or revoked by a duly authorized official, by a court of competent jurisdiction, or by operation of law. Nothing in this subsection prohibits the discontinuance or modification of such a proceeding under the same terms and conditions and to the same extent that such a proceeding could have been discontinued or modified if this Act had not been enacted.

(2) The Secretary and the Commission may issue regulations providing for the orderly transfer of such a proceeding to the Department or the Commission.

(c) Except as provided in subsection (e)—

(1) the provisions of this Act do not affect a suit commenced before this Act takes effect, and

(2) in such a suit, proceedings shall be had, appeals taken, and judgments rendered in the same manner and effect as if this Act had not been enacted.

(d) No suit, action, or other proceeding commenced by or against any officer in his official capacity as an officer of any department or agency, functions of which are transferred by this Act, shall abate by reason of the enactment of this Act. No cause of action by or against any department or agency, functions of which are transferred by this Act, or by or against any officer thereof in his official capacity shall abate by reason of the enactment of this Act. The authority to impose sanctions and grant waivers with respect to conflicts of interest occurring before the effective date of this Act, and the requirement to maintain records relating to the consideration of conflicts of interest before the effective date of this Act, do not abate by reason of the enactment of this Act.

(e) If, before the date on which this Act takes effect, any department or agency, or officer thereof in his official capacity, is a party to a suit, and under this Act any function of that department, agency, or officer is transferred to the Secretary, the Commission, or any other official, then the suit shall be continued with the Secretary, the Commission, or other official, as the case may be, substituted.

SEPARABILITY

SEC. 705. If a provision of this Act or its application to any person or circumstance is held invalid, neither the remainder of this Act nor the application of the provision to other persons or circumstances shall be affected.

REFERENCE

SEC. 706. With respect to any functions transferred by this Act and exercised after the effective date of this Act, reference in any other Federal law to any department, commission, or agency or any officer or office the functions of which are so transferred shall be considered to refer to the Secretary, the Commission, or other official or component of the department or commission in which this Act vests those functions.

PRESIDENTIAL AUTHORITY

SEC. 707. Nothing in this Act limits, curtails, abolishes, or terminates any function of, or authority available to, the President which he had immediately before the effective date of this Act; or limits, curtails, abolishes, or terminates his authority to delegate, redelegate, or terminate any delegation of functions.

CONFORMING AND TECHNICAL AMENDMENTS

SEC. 708. (a) In section 19(d)(1) of title 3, United States Code, strike ", Secretary of Energy".

(b) In section 101 of title 5, United States Code, strike "The Department of Energy".

(c) In section 5312 of title 5, United States Code, strike "Secretary of Energy".

(d) In section 5313 of title 5, United States Code, strike "Deputy Secretary of Energy" and insert in its place the following: "Deputy Secretaries (3), Department of Commerce".

(e) In section 5314 of title 5, United States Code, strike "Under Secretary of Energy".

(f) In section 5315 of title 5, United States Code, strike "Assistant Secretaries of Energy (8)" through "Director, Office of Energy Research, Department of Energy", inclusive, and "Assistance Secretaries of Commerce (8)," and insert in their place "Associate Deputy Secretary for Energy Policy and Research, Department of Commerce." "Associate Deputy Secretary for Defense Programs, Department of Commerce." "Assistant Secretaries of Commerce (14)."

(g) In section 5316 of title 5, United States Code, strike "Deputy Inspector General, Department of Energy" and "Additional Officers, Department of Energy (14)" and insert in their place the following: "Director, Bureau of Energy Information, Department of Commerce." "Assistant Secretary for Security Affairs, Department of Commerce."

(h) Section 58 of the Federal Energy Administration Act of 1974 (15 U.S.C. 790g) is amended by—

(1) amending subsection (a)(2) to read as follows:

"(2) the disclosure of which by the Director under section 401(f) of the Federal Energy Reorganization Act of 1982 would, as determined by the agency head, impair significantly the discharge of authorities and responsibilities that have been delegated to, or vested by law in, the agency.";

(2) redesignating subsection (b) as subsection (c); and

(3) adding a new subsection (b) as follows:

"(b) The Director, on behalf of the administrator, may provide the head of a Federal agency from which energy information is sought under subsection (a) of this section with a binding assurance that energy information received from that agency will not be disclosed except as authorized by sections 401(d)(2) or 401(g) of the Federal Energy Reorganization Act of 1982 if the head of the agency from which the information is sought advises the Director that a determination has been made under subsection (a)(2) of this section and that the information will not be provided without a binding assurance of nondisclosure. Any statutory restrictions on, or penalties, for the disclosure of energy information received under this section shall apply to the Administration to the same extent as to the agency from which the energy information was received.".

(i) Section (2)(b)(1) of Reorganization Plan Numbered 3 of 1979 (93 Stat. 1382) is amended to read as follows:

"DEPUTY SECRETARY

(b)(1) "There shall be in the Department a Deputy Secretary, appointed by the President, by and with the advice and consent of the Senate, who shall be compensated at the rate provided for level II of the Executive Schedule under section 5313 of title 5, United States Code. The Deputy Secretary shall perform such duties and exercise such powers as the Secretary may from time to time prescribe and shall act for and exercise the functions of the Secretary during the absence or disability of the Secretary or in the event the office of Secretary becomes vacant. The Secretary shall designate the order in which other officers of the Department appointed by the President, by and with the advice and consent of the Senate, shall act for and perform the functions of the Secretary during the absence or disability of both the Secretary and Deputy Secretary, or in the event of vacancies in both of these offices, until a successor is appointed.".

(j) Section 3(17)(B) of the Federal Power Act (16 U.S.C. 796) is amended by striking "in consultation with the Secretary of Energy".

(K) The Natural Gas Policy Act of 1978 is amended by—

(1) striking "Department of Energy" in section 123 (15 U.S.C. 3333) and inserting in its place "Commission"; and

(2) amending section 505 (15 U.S.C. 3415) by—

(A) striking "Secretary of Energy" in subsection (a)(1) and inserting in its place "the Commission"; and

(B) striking "Secretary" and "his" wherever they appear in subsection (a)(2), (a)(3) and (b) and inserting in their place "Commission" and "its", respectively.

(l) The Public Utility Regulatory Policies Act of 1978 is amended by—

(1) striking "of the Secretary or" in section 4(2) (16 U.S.C. 2603(2)).

(2) striking the second sentence of section 205(b)(2) (16 U.S.C. 824(a)–1(b)(2)) and inserting in its place "The Commission shall report annually to the President and the Congress regarding any such recommendations and subsequent actions taken by electric utilities and by the Commission under this Act, the Federal Power Act, and any other provisions of law.";

(3) striking "Secretary" in section 210(g)(2) (16 U.S.C. 824a–3(g)(2)) and inserting in its place "Commission";

(4) striking "Secretaries of Energy, the Interior, and Transportation" in section 507(a)(1) (42 U.S.C. 2007(a)(i)) and inserting in its place "Commission and the Secretaries of the Interior, Commerce, and Transportation"; and

(5) amending section 602(b) (16 U.S.C. 824a–4(b)) by—

(A) striking "Notwithstanding any transfer of functions under the first sentence of section 301(b) of the Department of Energy Organization Act"; and

(B) striking "Commission" wherever it appears and inserting in its place "Secretary of Commerce".

(m) Section 209 of the Economic Stabilization Act of 1970 is amended by adding "The right of the Attorney General to bring such an action shall not be affected by the commencement or pendency of an administrative proceeding which encompasses the same violation or violations, provided that the administrative proceeding is terminated within a reasonable time after the commencement of the action and prior to the issuance of a final order.".

(n) The Energy Security Act is amended by—

(1) amending section 203(16) (42 U.S.C. 8802(16)) to read as follows:

"(16) The term 'Office of Alcohol Fuels' means the organizational component assigned responsibility for carrying out the functions of the Secretary of Energy under subtitle A of this title which relate to alcohol."; and

(2) repealing section 220 (42 U.S.C. 8820).

REPEALS

SEC. 709. (a) The Department of Energy Organization Act is repealed. This repeal does not affect functions vested in the Secretary of Transportation by section 310 of that Act (42 U.S.C. 7159) or the amendments to other laws in section 709 of that Act

(b) The Federal Energy Administration Act of 1974 is amended by repealing sections 17, 18, 25, and 32 (15 U.S.C. 776, 777, 784, and 788), and striking their catchlines.

(c) Section 308 of the Energy Research and Development Administration Authorization Act of 1977 (42 U.S.C. 5816a) is repealed.

(d) Sections 1 and 2 of the Act of June 5, 1939 (ch. 180, 53 Stat. 808; 15 U.S.C. 1502, 1503) are repealed.

(e) The Act of October 26, 1949 (ch. 733, 63 Stat. 908; 15 U.S.C. 1514) is repealed.

TRANSITION

SEC. 710. With the consent of the Secretary of Energy, the Secretary and the Commission may use the services of officers, employees, and other personnel of the Department of Energy for so long as may be needed to facilitate the orderly transfer of functions under this Act.

ENVIRONMENTAL IMPACT STATEMENTS

SEC. 711. The transfer of functions under titles II and V of this Act does not affect the validity of any draft environmental impact statement published before the effective date of this Act.

TITLE VIII—EFFECTIVE DATE AND INTERIM APPOINTMENT

EFFECTIVE DATE

SEC. 801. (a) This Act takes effect on October 1, 1982, or one hundred and twenty days after its enactment, whichever is later, except that section 710 takes effect upon the date of enactment.

(b) Notwithstanding subsection (a) of this section, at any time after this Act becomes law—

(1) the officers provided for in titles III, IV, and V of this Act may be nominated and appointed, as provided in those titles, and

(2) the Secretary and the Commission may issue regulations under section 704(b)(2) of this Act.

Fund available to any Department or agency (or any official or component thereof), the functions of which are transferred to the Secretary and the Commission by this Act, may be used, with the approval of the Director, Office of Management and Budget, to pay the compensation and expenses of an officer appointed under this subsection until funds for that purpose are otherwise available.

INTERIM APPOINTMENTS

SEC. 802 If one or more officers required by this Act to be appointed by and with the advice and consent of the Senate have not entered upon office on the effective date of this Act, the President may designate any officer whose appointment was required to be made by and with the advice and consent of the Senate, and who was such an officer immediately before the effective date of this Act, to act in the office until it is filled as provided in this Act. While so acting, such an officer shall be compensated at the rate prescribed by this Act for the office in which the officer acts.

ACEC FILE 729, 430

A STATEMENT BY THE:

ENERGY COMMITTEE

of the

AMERICAN CONSULTING ENGINEERS COUNCIL

to the

U.S. SENATE GOVERNMENTAL AFFAIRS COMMITTEE

on

REORGANIZATION OF THE DEPARTMENT OF ENERGY

September 15, 1982
Washington, D.C.

The American Consulting Engineers Council (ACEC) is a national trade association consisting of over 3,800 engineering firms and 51 state and regional organizations. It had its beginnings with the former American Institute of Consulting Engineers, founded in 1910, and made up of engineers who had distinguished themselves as engineering consultants and who enjoyed a favorable reputation for the successful performance of important professional tasks. Members of ACEC are firms whose principals are professional registered engineers. They design nuclear power plants, synfuel facilities and hydroelectric plants, as well as work in the areas of solar, wind, cogeneration, geothermal and ocean thermal energy conversion. Many are heavily involved in energy conservation and perform energy audits and complex technical analyses for every type of building ranging from single family dwellings to huge industrial complexes. In brief, consulting engineers are involved in every type of energy technology known and even some not commonly known.

The ACEC is an interest group like many others in Washington that have testified in the past. However, we are not asking for a special favor, tax break, or any protective legislation from Congress. Only a reduction in the federal bureaucracy through the elimination of the Department of Energy as a cabinet level agency. The national Energy Committee of ACEC supports the President's reorganization proposal, as well as repeal of many of the federal energy programs still in existence.

This decision to support reorganization was not arrived at without serious consideration. It was deliberated and carefully thought out by the Energy Committee, which consists of professional engineers who were in the energy business long before there was a crisis. They have accumulated years of experience and have been on the leading edge of engineering innovation and technology. Consulting engineers have had the engineering responsibility for some of the largest and most well known construction projects in the U.S. and around the world, including the Sears Tower in Chicago, the United Nations building, the world's largest earth dam in Pakistan and the electrification plan for the entire kingdom of Saudi Arabia. Included, as an appendix, is a partial list of award winning engineering projects by consulting engineers.

The ACEC does not view a lesser federal role as detrimental to the cause of energy conservation in America. Fewer government programs and less federal involvement reduce spending and government regulation. Also, there is no question the average American is now more aware than ever of the need for energy conservation and has been taking steps to conserve energy and reduce utility bills. There is statistical evidence of this in DOE's Monthly Energy Review, which has been showing consistent declines in energy consumption in all sectors as well as residential.

It is now clear that Americans were not apathetic toward conservation, having taken all degrees of initiative to fulfill their responsibility toward alleviating America's energy dependence. Hard evidence of public concern is coupled with the fact that an increasingly informed American public is realizing that government programs and massive expenditures of tax dollars do not guarantee conservation. A recent study by the Energy Department has indicated all federal programs in energy conservation have accounted for less that 5% of the energy that has been saved. Hardly an impressive record for the hundreds of millions of tax dollars spent on them. A recent GAO report on implementation of energy conservation programs at the state level underscores this finding. GAO found that energy savings under DOE's state conservation program have been "overstated and undersupported." In New Jersey, one of six states studied carefully for the report, 19 conservation programs accounted for 80% of expenditures but 13% of energy savings in 1980. The federal program has distributed some $289 million to states since 1976 to encourage reductions in energy use.

The private sector is providing the necessary energy conservation services at any level the recipient chooses to become involved. Engineers, architects, mechanical and electrical contractors, plumbing, heating and air-conditioning contractors and others all provide energy auditing services.

Consulting engineers are increasing their role in energy conservation - an area with considerable market potential. However, this activity has been inhibited by federal programs that were supposed to enhance it. Most of the government's conservation programs were spawned by the energy crisis when

Congress perceived it must act because the public was skeptical about whether a crisis actually existed. The result, in our opinion, was an overreaction as exemplified by the mandatory Building Energy Performance Standards (BEPS), the Residential Conservation Service (RCS), the Commercial and Apartment Conservation Service (CACS), and others.

Federal programs like Residential Conservation Service and Commercial and Apartment Conservation Service (CACS) involve government subsidized energy audits with federal regulations on how to perform them. Our concern is not that individual residences and businesses should not receive energy audits but where those audits should come from. The private sector is currently providing energy audits for individuals, businesses, apartments and industry. Having utilities required to perform audits if requested by their customers is no longer necessary because of the availability of the private sector to supply these services. There is no longer a need to insert the utilities as a middleman between the recipients of energy audits and those who provide the service. That is what the Residential Commercial Service and Commercial and Apartment Conservation Service Programs do and results not only in another level of bureaucracy, but an unneeded penetration of the government into the business world.

The Energy Extension Service has funded the training of energy auditors who end up in competition with the existing pool of private sector auditors.

A recent example of government competition occurred in the South where one of our members had a contract to do an audit on a shopping center. The TVA came in and offered to do it for nothing. The engineer was forced to let them out of the contract if he wanted to keep them as a future customer. This is not an isolated case, the Energy Extension Service in Connecticut was giving free audits to small businessmen much to the detriment of our firms in the area that would have gotten that business. It is all well and good to help struggling small businesses, but not at the expense of other small businesses. Over 90% of the 3,800 members of ACEC are small businesses. We understand the TVA has a backlog of energy audit requests - no wonder, if they do it for nothing. However, we are all aware that they may audit at no charge but they are not free as the rate payers are burdened with the costs.

Congress is rightfully concerned over who will fill the void created by the elimination of federal programs. We contend it is being filled right now by us along with the contractors mentioned previously. Private businesses are now providing services spanning the range from audits to installation of energy conservation measures to manufacturing energy conservation devices - all of this without the benefit of federal government backing or financing.

We would like to conclude that there is a proper role for the federal government in energy conservation. It lies in long term research and development, monitoring national energy usage, technology transfer, and supplying reliable information on the results of research and monitoring.

ENGINEERING EXCELLENCE AWARDS ENTRIES

ALASKA

Alaska - Klawock Hatchery
Anchorage - Corrosion for Protection for Wharf Foundation Piles at the Port of Anchorage
Alaska - State of Alaska Single Wire, Ground Return Transmission
Adak - Enlisted Men Barracks
Barrow - Power Plant and Distribution System - Naval Arctic Research Lab
Fairbanks - Regional Subarctic Wastewater Treatment Facility
Anchorage - Captain Cook Hotel - New Tower
Prudhoe Bay - Operation Center, Phase I Addition Prudhoe Bay
Barrow - Nuiqust Airport Dredge Project, North Slope Burrough
Alyeska - Thermal Pile Support for the Trans Alaska Pipeline
Beaufort Sea - Geotechnical Investigation

ARKANSAS

Springdale - Land Application of Poultry Process Wastewater

FLORIDA

Orlando - Disney World Monorail

Sarasota County - The Meadows
Gainesville - Gulf Oil Chemicals Wastewater
Miami - Barrell Shell Bridge
Gainesville - Sulfur Dioxide Control Strategy Evaluations for Fossil Fuel Steam Generators
Miami - Southern Bell Telephone Company Microwave Tower
Tallahassee - 30 mm Ammunition Loading System
Coral Gables - Orbiter Mate/Demate Device
Boca Raton - Unitized Air Conditioning Module Design
Boca Raton - Solar Energy and Incinerator Heat Recovery Systems - Boca Raton Community Hospital
Palmetto - Treatment Process Improvements
Clearwater - Cross Bar Ranch Well Field Design
West Palm Beach - Pelican Bay Boardwalk and Beachfront Facility
County of Sarasota - Swift Road
Orlando - Orlando International Airport Passenger Terminal Complex
Orlando - Iron Bridge Regional Water Pollution Control Facility
Miami - North District Wastewater Treatment Plant

DELAWARE

Delaware Expressway
St. Georges - Borrow Operation

GEORGIA

Savannah - Aerated Lagoon System
Atlanta - The Omni
Savannah - Union Camp Corporation
Atlanta - The Simmons Company Jones Bridge Headquarters

GEORGIA con't

Atlanta - 350/ton day Corrugating Medium Waste Paper Recycle Mill
Atlanta - Covered Hopper Rail Car Cleaning Facility
Atlanta - Interstate 26 Landslide Project
Clayton County - Wastewater Treatment and Land Application Systems
Atlanta - Delta General Office Building - Delta Airlines
Georgia Pacific Corporation - Tubular Conveyor Bridge Crossing Depoe Slough
Atlanta - Lenox Square Plaza Court Expansion
Atlanta - Corrosion Control Facility: Solar Water Heating System
Atlanta - Delta Airlines Inc - TOC-1 Hangar Extension and Renovation
Atlanta - Covered Hopper Rail Car Cleaning Facility
Eutaw - Energy Efficient Wastewater Treatment System
Valdosta - Central Church
Jekyll Island - A Motel Complex for Jekyll Island

ILLINOIS

East Chicago - No. 1 Cont. Slab Caster & Water Pollution Control Facility
Carbondale - Cedar Creek Reservoir Project
Schaumburg - John E. Egan Water Reclamation Plant
Decatur - Decatur Water Treatment Plant
Chicago - McHenry Dam - Lake Definace State Park
Canton - Line-fly ash stabilized fill supporting Central Illinois Light
Company Power Plant
Chicago - Total Energy Plan - Summit Plaza Apartments
Columbia - Alton Square Shopping Center
Norfolk - Regional Airport and Botanical Gardens
Chicago - Coral Reef Aquarium
Springfield - Municipal Parking Deck
Chicago - West Suburban Waste Water Treatment Plant
Chicago - Highway Engineering Course
Springfield - Taxiways, Capital Airport
Chicago - Standardized Building Components for Schools
Springfield - Executive Mansion Renovation
Joliet - Joliet Power Plant Disposal, Lincoln Quarry
East Moline - East Moline Storm Drainage
Chicago - Cornell Hydro Redevelopment
Springfield - Bill Chamberlain Baseball Park
Northbrook - The Protector
Park Ridge - Rock Mechanics Studies, Longwall Mining Demonstration
Springfield - Lincoln Library
Glenview - Prefabricated Structural Members of Cut-and-Cover Tunnels
Springfield - Power Plant Wastewater - Clarification
Elgin - Louis A. Weiss Memorial Hospital Parking Facility
Chicago - O'Hare Water Reclamation Plant
Chicago - Sears Tower
Chicago - Kishwaukee River Building
Curran-Gardner Townships - Curran-Gardner Water Treatment Plant Expansion
Chicago - Rockwell Street Bridge Replacement
Chicago - Water Management Program - Rep. Steel Corporation

MAINE

Augusta - Highway Safety Study Maine Interstate 95
Sanford - Advanced Wastewater Treatment Facility

MARYLAND

Frederick - Lake Linganore at Eaglehead
Howard County - Rapid Frame Bridges over Interstate 95
Owings Mills - Hampton Plaza
Frederick County - Ridge Road Arch Over Interstate 70
Baltimore - Direct access Ramp to Rockville Town Center
Largo - Capital Centre
Baltimore - MCA Engineering Corporation
Columbia - Elkhorn Lake - Village of Owen Brown
Baltimore - Pedestrian Overpass over Interstate 95, Kane Street to Quinton Street
Montgomery County - Washington Temple Project
Owings Mills - National Tower
Baltimore - Upgrading Street and Parking Lot Lighting
Maryland - Carroll Mill Road Twin - Cill Reinforced Concrete Box
Baltimore - Baltimore Regional Rapid Transit System
Millersville - Millersville Sanitary Landfill
Baltimore - U.S. Frigate Constellation - Lighting
Towson - Thomas Johnson Memorial Bridge
Baltimore - Baltimore Harbor Outer Crossing (Francis Scott Key Bridge) Three-Span Truso Unit
Carrolltown - Storm Water Management Facility - Carrolltown - PUD
Baltimore - South Shore Marina
Towson - Mine Subsidence Risk Evaluation, Frostburg State College
Rockville - Dynamic Compaction for Georgetown Safeway Store
Dade County - Gloria Floyd Elementary School
Baltimore - Baltimore Convention Center
Baltimore - Baltimore/Washington International Airport
University of Maryland - A Cost Effective Decontamination Program
Baltimore - U.S. Army Coastal Engineering Research Center - Field Research Facility
Baltimore - "Metallic Tunnel Liner - Baltimore Regional Rapid Transit

MICHIGAN

Flat Rock - Michigan Casting Center
Oakland County - Pollution Control Facilities
Ann Arbor - Site Engineering for a Land Reclamation Project
Grand Rapids - Lagoon Spray Irrigation Wastewater Treatment Facility
Southwest Michigan - Study for Storm Water Runoff
Bloomfield Hills - Primary Tanks A-1 and A-2
Ann Arbor - Center for Creative Studies
Detroit - 14 Bulk Mail Centers
Bloomfield Hills - Northeast Sewage Pumping Station
Detroit - Detroit Metro Wastewater
Grand Haven - Grand Haven-Spring Lake Wastewater Treatment Plant
Cadillac - Cadillac Wastewater Treatment Plant
East Lansing - MSU Ice Arena
East Lansing - A Water Quality Management Project
Saginaw - Saginaw Federal Building
Ann Arbor - 1975 Turbine Generator Installation
Pontiac - Metropolitan Stadium
Detroit - Solar Collector System SH & G Headquarters
Grand Rapids - Wastewater Treatment Facilities
Bloomfield Hills - University of Michigan Central Environment Controls
Grand Rapids - Concept, Research, Approval ...
Jackson - Snettisham Transmission Line
Southfield - Microwave Tower

MICHIGAN con't

Grand Rapids - Industrial Wastewater
Pretreatment Facilities - A cooperative effort by government and industry
Trenton - Chrysler Corporation Trenton Engine Plane - Industrial
Detroit - Chevrolet Gear and Axle Plants One and Three - New Roof Structures
Allegan - "Thinking Time" Results in Significant Savings - Wastewater Treatment Plant
Detroit - Temporary Bypass Pumping Station
Farmington Hills - Shamrock Landfill
Bay City - 30 Watermain Crossing the Saginaw River
Detroit - Romulus Engineering Corporation - Detroit Deisel Allison, Division of General Motors Corporation
Bloomfield Hills - Pine Street Stormwater Pumping Station
Flint - The Riverbank Park
Bay City - Weed Kill and Stump Removal at Sanford Lake
Detroit - Emergency Sewer Interceptor Repair
Bay City - Combined Sewer Overflow Retention Treatment Structures
Woodland Park - Clean up of a Chemical Spill
Jackson - Jackson Sludge Disposal System
Bloomfield HIlls - Industrial Waste Pre-Treatment and Water Re-use Facility
Sterling Heights - 17 mile road between Mound Road and Van Dyke Road

MINNESOTA

University of Minnesota - Psychology Building
New Hope - St. Joseph's Parish Center
St. Louis - St. Louis Park Pool and Arena
Minnesota - Telephone Communications System
Hopkins - Minnesota River Siphon and Crossing
Minnespolia - I.D.S. Center
Minnesota - Highway Bridge Geometrics by Computers
Minneapolis - St. Cloud Dam Reconstruction
Minneapolis - Water Weed Harvestor
Minneapolis - Federal Reserve Bank
Ely - Tertiary Wastewater Treatment Plant at Ely
St. Paul Advanced Wastewater Treatment Plant
Burnsville - Ice Arena
St. Paul - Aeration Compressor System
Minneapolis - Lifting Twin Arch Spans
Fridley - Wastewater Treatment Plants
Minneapolis - Hennepin County Government Center
Bloomington - Water Supply Facility and Appurtenant
Plymouth - Bell Telephone Company
Fridley - Dewatering Plant for Recovery and Disposal of Waste Solids
Minneapolis - Fairview, St. Mary's Hospital Parking Facility
Minneapolis - Ruierfront Coliseum
Edina - Valley Fair
Wayzata - Ridgedale Center Stormwater Control Facilities
Minneapolis - Minorca Tailings Bain - Starter Dam
Minorca - DM & IR Minorca Bridge M8
Minnetonka - City of Minnetonka Wing Lake Trunk Sewer
Minneapolis - Pedestrian and Recreational Bridges
St. Paul - Evaluation of Floor Movement, American Crystal Sugar Plane
Hennepin County - Nursery Irrigation System, Crow Hassan Park Reserve
Hennepin County - Rehabilitation of the Coon Rapids Dam
Minnetonka - Opus 2 Planned Development
Minneapolis - Multi-level Parking Facility

MINNESOTA con't

Valley Park - Valleyfair Flume Ride
Baltimore - Metallic Tunnel Liner - Baltimore Regional Rapid Transit
St. Louis Park - Minnesota Zoological Garden
Ramsey County - Ramsey County Adult Detention Center
St. Paul - Sludge Thickening Facilities
Minneapolis - Repaid of Upton Building
Duluth - Coal Gasification Project - University of Minnesota
Hartford - Hartford Coliseum
Minneapolis - Flour Mill and Warehouse Complex
Twin Cities - Empire Wastewater Treatment Facilities
Roseville - Loring Wate
St. Paul - Menard Plaza Parking and Storage Area
Minneapolis - Dry Clean Dairy
Minneapolis - International Bridge Addition
Minneapolis - Fuel conversion and cogeneration facility
Twin Cities - Earthen Dike for Stormwater Treatment Basin
Minneapolis - Relocation of the Brown-Ryan Livery Stable
Minnesota - Minnesota Correction
St. Paul - Interceptor Diversion Structure and Pretreatment Facilities
St. Louis Park - Hennepin County Medical Center

MISSOURI

Johnson County - Sidestream Treatment Facilities
St. Louis - St. Louis Children's Hospital, Excavation Retention System
St. Louis - Outdoor Education Center for the Handicapped
St. Louis - Modernization of Continuous Solventless Paste Preparation Facility
St. Louis - Industrial Wastewater Management Absorbent Cotton Company
St. Louis - Meramec Park Lake Master Plan
Kansas City - Truman Medical Center
Kansas City - H. Roe Bartle Convention Center
Duluth - Duluth Water Filtration Plant
St. Louis - Miller Brewing Company
St. Louis - General Motors Engineering Staff Aerodynamic Laboratory
Jefferson - Study of Sludge Disposal by Land Application for Wastewater Treatment Facilities
St. Louis - C.F. Industries, Inc., Fertilizer Warehouse & Transfer Facility
Lamar - 1977 Water System Improvement Program
St. Louis - Jewel Box Floral Conservatory
St. Louis - Margaret McCormick Doisy Learning Resources Center (University of St. Louis)
St. Louis - Standard Postal Installation Design Study
Charles - First Capitol Urban Renewal Project
Kansas City - Perimeter Acquisition Radar Power Plant for Safeguard Ballistic Missile Defense System
Kansas City - Hangar Structure for TWA's Airframe Overhaul Facility
St. Louis - Lac Capri Terre Du Lac
Columbia - Warren E. Hearnes Multipurpose Building (University of Missouri)
Kansas City - Mercantile Bank Building
Kansas City - Fly Ash - Power Plant Waste Recycled as Construction Material
St. Louis - Microwave Tower
Springfield - Reconstruction of Benton Avenue Viaduct & Grand Avenue Viaduct
Monett - Wastewater Treatment Facility

MISSOURI con't

St. Louis - Bird House Renovation
St. Charles - Riverside Mall
St. Louis - Local Public Works Improvements - Streets & Parks
St. Louis - Locks & Dam No. 26

NEW HAMPSHIRE

Portsmouth - Interstate 95
Waterville Valley - Advanced Wastewater Treatment Facilities
Concord - Hall Street Wastewater Treatment Facility
Manchester - Water Filtration Plant

NEW MEXICO

Los Alamos - Los Alamos Meson Physics Facility
Albuquerque - U.S. Department of Energy, Albuquerque Operations Office
Albuquerque - Successfull Heap Leach Gold for Gold Fields Corporation
Albuquerque - Sandia Dry Sludge Irradiation Facility

OHIO

Jefferson County - Friendship Park
Brecksville - Ohio Bell Telephone N.E. Data Center
Cuyahoga County - Solid Waste Management Plan
Columbus - Conesville Electric Power Generating Station, Unit 4
Cleveland - Resource Recovery from Municipal Solid Waste in Ohio

Columbus - Courts Tower and Galleria Space Frame
Lincoln - N Street Storm Sewer Project No. 63-E-73
Cleveland - Dayton Low Head Dam
Columbus - Washington County Road 60
Cincinnati - Air Pollution Abatement
Cleveland - Ohio High Speed Intercity Rail Passenger Program
Columbus - Quaker Square Hilton Inn
Delaware County - Oletangy Environmental Control Center

WASHINGTON

Seattle - Auburn - Lee Hill Bridge Over Green River near Auburn
Spokane - U.S. Pavilion at Expo '74 World Fair
Bellingham - Municipal Sewerage System
Marysville - Edward Springs Reservoir
Gardiner - Discovery Bay Camper Park
Seattle - Offshore Petroleum Transfer Systems for WA State
S.W. Alberta - Waterton Gas Plant
Port of Tacoma - Bulk Export Terminal
King County - King County Multi-purpose Domed Stadium
Richland - Composite Reactor Component Test Activity, Handord Project
Seattle - Thurston County - Lacey, Olympia, Tumwater & Thurston County
Wastewater Treatment Project
Bellevue - Design System for Storm Drains
Seattle - Master Plan for Warm Springs Fish Hatchery
Seattle - Seismic Response Analysis Tacoma Spur Urban Arterial

WASHINGTON con't

Seattle - Finished Water Reservoir
Richland - Interim Decay Storage System
Seattle - Advanced Wastewater & Waste Chemical Treatment System
Seattle - Schuster Parkway
Seattle - Seattle Aquarium
Seattle - Energy Analysis for the Operations Building - NOAA
Monroe - Wastewater Treatment Plant
Bellevue - ITT Rayonier Secondary Treatment
Du Pont - Environmental Impact Statement, Weyerhaeuser Export Facility at Du Pont
Seattle - Communication Station Renovation
Olympia - Cowling Salmon Hatchery Water Supply Dam
Yakima-Tieton - Irrigation District Emergency Canal Repair
Vancouver - Vancouver Pretreatment Facilities
Seattle - Boeing Company - Paint Hangar Building 45-03
Seattle - Aircraft Maintenance Hangar, Whidbey National Air Station
Enumclaw - Enumclaw Wastewater Treatment Facility
Port of Angeles - ITT Rayonier Port of Angeles Secondary Treatment Facilities

NEW YORK
STATE ENERGY OFFICE
ROCKEFELLER PLAZA
ALBANY, NEW YORK 12223
JAMES L. LAROCCA, COMMISSIONER

June 28, 1982

Dear Senator Roth:

Thank you for the opportunity to present written testimony on S. 2562, the Federal Energy Reorganization Act of 1982.

I believe that this proposal to reorganize and dismantle the Department of Energy is a serious mistake. President Reagan's proposal is a symbolic gesture which would save energy, would not increase the effective coordination of national energy policy, nor would it increase the efficiency of the nation's energy systems. Indeed, this proposal, if implemented by Congress, would disperse the focus of national energy policy and send a message to the world that the national government is abandoning its commitment to solve the nation's energy problems. This proposal would destroy the effective partnership which has developed between the national government, and state and local governments with respect to energy matters.

If you have any questions, please do not hesitate to contact me.

Sincerely,

James L. Larocca
Commissioner

JLL/PRS/bmh

Senator William V. Roth, Jr.
Chairman
Senate Committee on
Governmental Affairs
3306 Dirksen Senate
Office Building
Washington, DC 20510

Testimony of

James L. Larocca
Commissioner, New York State Energy Office
Chairman, New York State Energy Research and Development Authority

Submitted to

Senate Governmental Affairs Committee

June 24, 1982
Room 3306
Dirksen Senate Office Building
Washington, DC

I welcome this opportunity to submit written testimony to the Senate Governmental Affairs Committee concerning S. 2562, the Federal Energy Reorganization Act of 1982, which would reorganize the Federal Department of Energy (DOE).

I wish to state at the outset that the proposed reorganization of the Department by Energy by shifting the energy programs to the Departments of Commerce, Interior and Agriculture is a serious mistake dismantles the Department. It is essentially a symbolic gesture which would not save money, nor would it increase the effective coordination of national energy policy or increase the efficiency of the nation's energy systems. Indeed, this proposal, if implemented by Congress, would disperse the focus of national energy policy and send a message to the world that the national government is abandoning its commitment to solve the nation's energy problems.

S. 2562, and the recently passed first Concurrent Congressional Budget Resolution which would eliminate or substantially curtail energy programs and research, grow out of what can only be described as a naive belief that private markets can attend to all of our energy problems. I have always had trouble finding this free market, because I see at its base an organization called OPEC, which sets the price of the basic energy commodity in the world by political agreement, rather than by reference to real market forces or cost. This fundamental reality influences and distorts everything that happens in the energy marketplace, and, indeed, in the world economy.

Over the last decade, this nation has had a long and thorough discussion of the various possible organizational arrangements for best achieving our national energy policies. Sweeping reorganization of fragmented energy planning, policy analysis and regulation by the Federal government was recommended as early as 1971 under President Nixon. As a result of the energy crises of the 1970s, it became clear that a fundamental change in the Federal government's approach to energy matters was essential. Republicans as well as Democrats, both in Congress and the White House, recognized at the time that national security, as well as the nation's economic and general welfare, depends upon an integrated and comprehensive national energy policy. This consensus resulted in the establishment of the Department of Energy.

The creation of the Department of Energy as a Cabinet level agency focused national attention on the nation's energy supply problems and on various means of addressing these problems. It assured that energy concerns would be integrated into decision making in virtually every aspect of national policy, including national defense, transportation, resource utilization, environmental protection, social welfare and economic development. This recognition of the pervasive implications of energy supply and management was backed by a commitment of Federal funding to assist the states in developing and implementing strategies and programs which promote the more efficient use of depletable energy resources and the development of alternative energy sources and technologies.

All of the factors which contributed to the need for a centralized energy policy agency on the national level continue to exist today. Energy policy still cuts across the entire fabric of American society. Although the present stabilization in oil prices and supply has removed the energy "crisis" from the front pages, energy policy must still be formulated in a comprehensive and integrated manner. Dispersing energy programs to various agencies with diverse concerns and priorities will weaken the nation's ability to address the many energy issues which still confront the nation.

Nor will dismantling the Department of Energy produce significant savings for the American taxpayer, as suggested by the President. A recent analysis by the Congressional Budget Office (CBO) has concluded that most current functions carried on by DOE would be retained and few cuts would occur as a direct result of proposal reorganization. The report points out that any large monetary savings would be due to policy changes as reflected in the FY '83 budget rather than to reorganization. The CBO further reports that the $3 million savings which would be achieved by reorganization would likely be offset by additional administrative and logistic costs and that any real monetary savings would be very minor.

Although most of DOE's functions would survive the reorganization, coordination would suffer and resulting decentralization would likely decrease efficiency rather than increase it. Indeed, it appears that nothing more is involved here than returning to the bureaucratic hodgepodge which preceded DOE -- a structure which was widely perceived as unable to solve the nation's energy problems.

One of the more troubling aspects of the proposed reorganization plan is its lack of special provision for a coordinated response to oil supply disruptions. One of the basic premises of energy policy since the Arab oil embargo has been that a single strong Cabinet-level department was necessary to respond to energy emergencies.

The elimination of a strong Federal role in emergency planning is a serious policy mistake. The reliance upon market forces as the primary response to all but the most severe energy emergencies will not be sufficient to address the economic, social and public health and safety dislocations likely to occur during any crisis, for several reasons. First, the national security and economic ramifications of a major disruption of the supply of imported oil would be so far-ranging in impact as to require a coordinated Federal response including, if necessary, allocation of limited supplies to assure the continuation of vital services and functions. Second, without Federal monitoring of critical energy supply data, information essential for a readjustment during an emergency would not be available. Finally, notions of basic equity require that government assure that the burden of any disruption be shared in a manner that is generally acknowledged to be fair and equitable.

Moreover, the President's proposal to reorganize DOE would destroy the effective partnership which has developed between the national and state and local governments with respect to energy matters. States and localities have fashioned meaningful energy policies and programs within the framework of the existing national energy policy. Dismantling DOE, in combination with the FY 1983 budget, would make it more difficult for states and localities to continue to address their energy problems. These actions will cause disruptions in programs that have proven effective.

The Federal energy policy which has developed over the last decade has complemented New York State's efforts. Federal laws and programs in the areas of energy conservation, renewable resources, natural gas pricing, energy research, coal conversion and emergency preparedness have significantly helped New York State in accomplishing its energy goals.

The major premise underlying the Administration's proposal to reorganize the Department of Energy appears to be that these programs and policies, which promote conservation and alternate energy development and provide for emergency planning, have not been effective. The Reagan Administration contends that the Department of Energy was a "wholesale failure" and that "ill conceived regulation impeded new source development, discouraged conservation and distorted distribution." I will be the first to say that the Department of Energy has not been a model of government effectiveness. DOE's critics, including myself, have frequently pointed out examples of the Department's failure to achieve a level of management effectiveness which measures up to the severity of the energy problems we face. However, the Reagan Administration chooses to ignore the major accomplishments which have resulted from the Department of Energy's programs. A brief description of how Federal energy conservation programs have worked in New York State is illustrative.

In New York, conservation has played a major role in reducing our dependence on imported petroleum. In just four years, New York's dependence on oil for total energy has dropped from 65 percent to 54 percent, and continues to decline. Our success is due in large measure to federal energy conservation grant programs administered through DOE.

The Institutional Grants Program for public buildings is an outstanding example. Through this DOE program, 2,979 buildings within New York State have received grants totalling $34.3 million. This amount was matched dollar for dollar by the recipients and was used for installation of energy conservation measures or technical assistance. We estimate that at least 33.8 million gallons of oil equivalent have been saved annually in New York public schools alone, totalling $29 million in annual savings at today's energy prices. The institutional buildings targeted under this Federal program (public schools, hospitals, colleges, public care facilities and local government buildings) are hard-pressed to respond to the free market forces which the Reagan Administration contends will force energy conservation.

The Federal-state partnership with respect to mandated programs such as State building codes and lighting efficiency standards further highlights the effectiveness of government action where market forces alone have failed to elicit a sufficient response to rising energy prices. As part of its federally approved Energy Conservation Plan, the New York State Energy Office proposed legislation establishing a State Energy Conservation Construction Code, which was adopted in 1978. The Code requires any building constructed within the State after January 1, 1979 to meet a minimum energy efficiency standard. The legislation also provides for periodic updating to insure that the most energy efficient materials and building techniques are used in new construction.

In the first year of its application, annual energy savings from new construction tripled to a little over 1.6 million equivalent barrels of oil, and by 1981 the annual energy savings increased seven fold to 3.5 million equivalent barrels of oil. These savings would not have occurred as rapidly if market forces had operated without government involvement.

The State lighting efficiency standards, also developed as part of the State's federally approved Energy Conservation Plan, further illustrate the effectiveness of government action where market forces alone have not been sufficient to promote energy efficiency. These standards require all existing non-residental buildings to minimize their consumption of energy by simply eliminating excess levels of lighting while maintaining adequate illumination. In 1981, the first year the standards were in effect in New York, the owners of approximately 23% of the estimated total square footage to which the lighting standards apply upgraded the efficiency of their building's lighting systems. We have estimated that these modifications represent an annual savings of almost 590 million kilowatt hours of electricity, worth over $63 million annually.

Further, under grant funding from the Federal Department of Energy, New York State has established a number of innovative and unique outreach activities to stimulate energy conservation. The Energy Advisory Service to Industry (EASI) program has established a sub-State regional network of contractors, general business organizations and educational institutions that provide, energy audits at no-cost to small and medium sized businesses throughout the State. Small businesses, while suffering from rising energy costs, lack the necessary expertise to take appropriate cost-effective steps at reducing their energy costs. The EASI program, through its audit service, successfully fills this need.

Additionally, Federal funding disbursed through the Department of Energy has enabled New York State to offer a boiler efficiency improvement program and an oil heat efficiency improvement program aimed at the commercial and residental sectors to lessen the impact of rising energy prices and to decrease the State's dependence on imported petroleum.

Together with the Institutional Grants Program, these programs are accounting for savings equivalent to approximately six and one-half million barrels of oil per year, valued at over $220 million. Program evaluation studies show that these programs have resulted in energy savings valued at between 10 and 800 times the cost of administering the programs. The ability of states to continue to achieve energy savings under these and similar programs will be severely diminished, if not eliminated, by the combined action of dismantling the Department of Energy and approving the proposed Reagan Budget.

New York State, like the Federal government, established in the late 1970's a single office to develop, coordinate and implement energy policy. This organizational structure, as well as the individual programs such as those I mentioned above, was recently reviewed by an independent State sunset commission. The commission, in its findings, concluded that if a centralized energy policy making office such as the State Energy Office did not exist within State government, it would recommend establishing one. I believe a similar conclusion would be warranted following an objective review of the need for DOE as a centralized national energy policy and planning agency.

The extent to which the proposal to reorganize DOE would actually result in a major shift in the direction of the nation's energy policy must be viewed in conjunction with the recently approved First Concurrent Budget Resolution. Although the Budget Resolution retains funding levels for energy conservation at FY '82 levels, there is still a great amount of uncertainty as to how the Congressional Appropriations Committees will actually allocate the funding between the various energy conservation programs. Indeed the lack of commitment to energy conservation by the Reagan Administration in the proposed reorganization plan further exacerbates this uncertainty.

President Reagan's emphasis on nuclear weapons research and other nuclear energy research at the expense of renewable resource and energy conservation research also represents a set back to national energy needs. The present DOE research and development structure was set up to focus energy research and development on particular national energy problems and priorities. President Reagan's reorganization proposal embodied in S. 2562 amounts to a actual shutdown of R&D in conservation and renewable energy program areas. I believe these proposed changes will seriously harm the nation.

The Reagan Administration asks for an increased role for private research and development activities, but I doubt that private industry will be able to take up the slack in energy R&D in these bad economic times. I note that private R&D funding has declined in real dollars over the last decade, hindered by inflation and high interest rates.

Moreover, some energy industries such as those related to housing are just too fragmented to undertake or finance strong R&D programs. Industry-sponsored R&D is, in fact, highly concentrated and undertaken by only a few industries.

Furthermore, President Reagan's energy R&D funding proposals will cause instability and abrupt changes in the R&D fields, will break up research teams which have taken years to develop, and set back multi-year research programs for which large investments have been made. It will take many years to develop the capabilities and motivations to build strong research programs in many fields.

In New York, building upon strong national energy R&D programming, we have been able to create a highly-effective energy research program which has advanced and complemented our state energy policies and, as an additional benefit, attracted a high level of private investment in energy R&D. For example, our research program has served to encourage the development of small hydro power in the State and has provided important information on the cumulative environmental impacts of coal conversions in the State, two important state energy policies.

In addition, the Administration plans to continue the long standing Federal subsidies designed to encourage the development of energy production from conventional fuels. A recent Battelle Institute study estimated that between 1918 and 1977 the Federal government expended $217.4 billion (1977 dollars) for incentives targeted to stimulate energy production. While the subsidies assumed many forms, nearly 50 percent of the incentives were distributed in the form of a reduction in taxation, such as depletion allowances for crude oil production and investment tax credits for electric utilities. The petroleum industry has received over $100 billion in incentives between 1918 and 1977, amounting to nearly half of the amount of subsidies expended by the Federal government to promote energy production. Federal incentives for electricity distribution, transmission and generation approximates $47 billion over the same period, excluding subsidization of the commercial nuclear power industry which has received $18 billion in Federal government incentives between 1948 and 1977. Non-tax subsidies such as direct grants, government services such as the maintenance of ports and waterways used for oil and coal activities and direct government involvement in energy production account for the remaining incentives.

The continuing Federal revenue drain resulting from these conventional fuel subsidies is enormous, especially when compared with existing tax breaks for energy conservation and renewable resources. A recent Congressional Budget Office report foresees FY '84 revenue losses of $2.3 billion as a result of the oil and gas depletion allowances. The forecasted revenue impact of all residential energy conservation tax credits, on the other hand, will amount to only $435 million in FY'84.

Continued government subsidization of energy production while at the same time slashing incentives which decrease energy consumption represents a mistaken balancing of energy priorities. It would also increasingly promote the interests of the energy producing states at the expense of the rest of the nation. As a result of price decontrol for petroleum and severance taxes for other energy resources, the tax coffers of the energy producing states are overflowing with the capital drained from the energy poor Northeast and Midwest. If we are to have incentives for the production of conventional fuels, we must also recognize the need for incentives for energy conservation and renewable resource development, the "oil and gas wells" of the Northeast and Midwest. As a region, we do not have the ability to produce our way out of the energy crisis, nor do we have the ability to go it alone without a commitment by Congress to a more evenly balanced national energy policy.

In conclusion, I strongly urge Congress to reject the proposed dismantling and reorganization of DOE. It would represent a giant leap backward in national energy policy. It would symbolically abolish a federal bureaucracy without providing any real taxpayer savings. It would destroy our national commitment to solve our energy problems and weaken our ability as a nation to effectively cope with energy emergencies. The reorganization plan embodied in S. 2562 would destroy the effective energy partnerships which have developed between the national and the state and local governments, and hinder the achievement by the states of their energy objectives.